SEARCH REQUEST FORM

RECEIVED
JAN 10 2002
TECH CENTER 1600/2900

58010

Requestor's Name: Rebecca Cook of 2807 OPA 2001

Serial Number: 09/899,704

Date: 1/10/02

Phone: (STIC) 308 4724

Art Unit: 1614

MEJ

Search Topic:

Please write a detailed statement of search topic. Describe specifically as possible the subject matter to be searched. Define any terms that may have a special meaning. Give examples or relevant citations, authors, keywords, etc., if known. For sequences, please attach a copy of the sequence. You may include a copy of the broadest and/or most relevant claim(s).

INV. . . Ricky Gene Schnellmann

Please search method of using L-ascorbic acid phosphate for recovering cellular functions in injuries of claims 12 & 16.

See claim 2 for reported of functions

Thanks

Rebecca

514

POINT OF CONTACT:
BABE O'BRYEN
TECH. INFORMATION SPECIALIST
STIC CM1 [redacted]

STAFF USE ONLY

Date completed: 1-27-02
Searcher: BOB
Terminal time: 79
Elapsed time: prep 30
CPU time:
Total time:
Number of Searches:
Number of Databases:

Search Site
- STIC
- CM-1
- Pre-S

Type of Search
- N.A. Sequence
- A.A. Sequence
- Structure
- Bibliographic 1 & E19

Vendors
- IG Suite
- STN 449
- Dialog
- [redacted]
- Geninfo
- SDC
- DARC/Questel
- Other

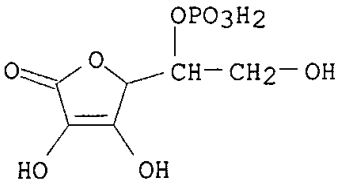
PTO-1590 (8-89)

USCOMM-DC 6043-P89

* U.S. GPO: 1998-388-788/22469

=> d ide 1-7

L11 ANSWER 1 OF 7 REGISTRY COPYRIGHT 2002 ACS
RN 144615-43-0 REGISTRY
CN L-Ascorbic acid, 5-(dihydrogen phosphate) (9CI) (CA INDEX NAME)
OTHER NAMES:
CN **Ascorbic acid 5-phosphate**
MF C6 H9 O9 P
CI COM
SR CA
LC STN Files: CA, CAPLUS, TOXCENTER, TOXLIT



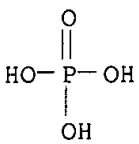
PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

2 REFERENCES IN FILE CA (1967 TO DATE)
2 REFERENCES IN FILE CAPLUS (1967 TO DATE)

L11 ANSWER 2 OF 7 REGISTRY COPYRIGHT 2002 ACS
RN 125913-31-7 REGISTRY
CN L-Ascorbic acid, phosphate (9CI) (CA INDEX NAME)
OTHER NAMES:
CN **Ascorbic acid phosphate**
CN Ascorbyl phosphate
CN Rovimix STAY-C
CN Rovimix STAY-C 25
CN Rovimix Stay-C 35
FS STEREOSEARCH
MF C6 H8 O6 . x H3 O4 P
SR CA
LC STN Files: AGRICOLA, BIOBUSINESS, BIOSIS, CA, CAPLUS, IPA, TOXCENTER, TOXLIT, USPATFULL

CM 1

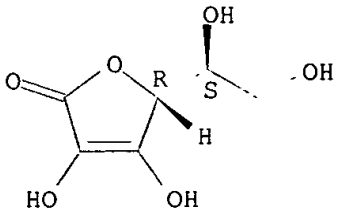
CRN 7664-38-2
CMF H3 O4 P



CM 2

CRN 50-81-7
CMF C6 H8 O6

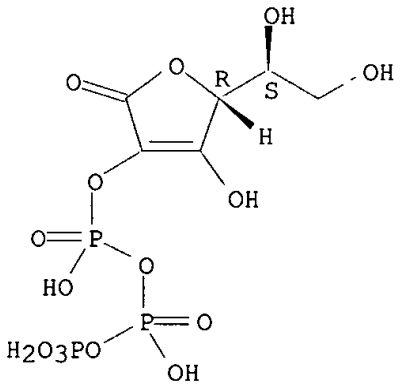
Absolute stereochemistry.



83 REFERENCES IN FILE CA (1967 TO DATE)
11 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
83 REFERENCES IN FILE CAPLUS (1967 TO DATE)

L11 ANSWER 3 OF 7 REGISTRY COPYRIGHT 2002 ACS
RN 109113-30-6 REGISTRY
CN L-Ascorbic acid, 2-(tetrahydrogen triphosphate) (9CI) (CA INDEX NAME)
OTHER NAMES:
CN **Ascorbic acid 2-triphosphate**
FS STEREOSEARCH
MF C6 H11 O15 P3
CI COM
SR CA
LC STN Files: BIOBUSINESS, CA, CAPLUS, CASREACT, TOXCENTER, TOXLIT, USPATFULL

Absolute stereochemistry.

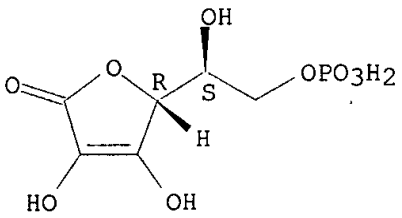


PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

20 REFERENCES IN FILE CA (1967 TO DATE)
3 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
20 REFERENCES IN FILE CAPLUS (1967 TO DATE)

L11 ANSWER 4 OF 7 REGISTRY COPYRIGHT 2002 ACS
RN 106579-53-7 REGISTRY
CN L-Ascorbic acid, 6-(dihydrogen phosphate) (9CI) (CA INDEX NAME)
OTHER NAMES:
CN 6-Phosphoascorbic acid
CN **Ascorbic acid 6-phosphate**
FS STEREOSEARCH
MF C6 H9 O9 P
CI COM
SR CA
LC STN Files: CA, CAPLUS, TOXCENTER, TOXLIT, USPATFULL

Absolute stereochemistry.

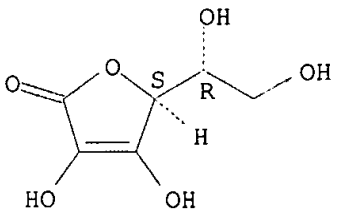


PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

10 REFERENCES IN FILE CA (1967 TO DATE)
2 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
10 REFERENCES IN FILE CAPLUS (1967 TO DATE)

L11 ANSWER 5 OF 7 REGISTRY COPYRIGHT 2002 ACS
RN 62624-30-0 REGISTRY
CN **Ascorbic acid (9CI)** (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN DL-Ascorbic acid
FS STEREOSEARCH
MF C6 H8 O6
CI COM
LC STN Files: ADISNEWS, AGRICOLA, BEILSTEIN*, BIOBUSINESS, BIOSIS, CA, CAPLUS, CASREACT, CEN, CHEMINFORMRX, CHEMLIST, CIN, DIOGENES, GMELIN*, HODOC*, HSDB*, MEDLINE, PHARMASEARCH, PIRA, PROMT, TOXCENTER, TOXLIT, TULSA, USPATFULL
(*File contains numerically searchable property data)
Other Sources: EINECS**
(**Enter CHEMLIST File for up-to-date regulatory information)

Relative stereochemistry.



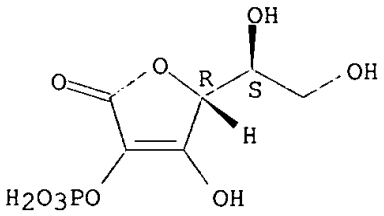
PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

168 REFERENCES IN FILE CA (1967 TO DATE)
4 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
169 REFERENCES IN FILE CAPLUS (1967 TO DATE)

L11 ANSWER 6 OF 7 REGISTRY COPYRIGHT 2002 ACS
RN 23313-12-4 REGISTRY
CN L-Ascorbic acid, 2-(dihydrogen phosphate) (8CI, 9CI) (CA INDEX NAME)
OTHER NAMES:
CN **Ascorbic acid 2-phosphate**
CN L-Ascorbic acid 2-phosphate
CN L-Ascorbic acid 2-phosphate (ester)
CN L-Ascorbyl-2-phosphate

FS STEREOSEARCH
DR 172173-78-3, 81877-56-7
MF C6 H9 O9 P
CI COM
LC STN Files: AGRICOLA, ANABSTR, BEILSTEIN*, BIOBUSINESS, BIOSIS, BIOTECHNO, CA, CANCERLIT, CAPLUS, CASREACT, CHEMCATS, DDFU, DRUGU, EMBASE, IPA, MEDLINE, PROMT, TOXCENTER, TOXLIT, USPATFULL, VETU
(*File contains numerically searchable property data)

Absolute stereochemistry.



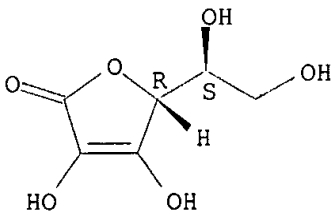
PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

230 REFERENCES IN FILE CA (1967 TO DATE)
13 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
230 REFERENCES IN FILE CAPLUS (1967 TO DATE)

L11 ANSWER 7 OF 7 REGISTRY COPYRIGHT 2002 ACS
RN 50-81-7 REGISTRY
CN L-Ascorbic acid (8CI, 9CI) (CA INDEX NAME)
OTHER NAMES:
CN (+)-Ascorbic acid
CN 3-keto-L-Gulofuranolactone
CN 3-Oxo-L-gulofuranolactone
CN Adenex
CN Allercorb
CN Antiscorbic vitamin
CN Antiscorbutic vitamin
CN Ascoltin
CN Ascorbajen
CN **Ascorbic acid**
CN Ascorbutina
CN Ascorin
CN Ascorteal
CN Ascorvit
CN C-Quin
CN C-Vimin
CN Cantan
CN Cantaxin
CN Catavin C
CN Ce-Mi-Lin
CN Ce-Vi-Sol
CN Cebicure
CN Cebion
CN Cebione
CN Cecon
CN Cegiolan
CN Ceglion
CN Celaskon
CN Celin
CN Cemagyl
CN Cenetone

CN Cereon
CN Cergona
CN Cescorbat
CN Cetamid
CN Cetemican
CN Cevalin
CN Cevatine
CN Cevex
CN Cevimin
CN Cevital
CN Cevitamic acid
CN Cevitamin
CN Cevitan
CN Cevitex
CN Chewcee
CN Ciamin
CN Cipca
CN Citrovit
CN Colascor
ADDITIONAL NAMES NOT AVAILABLE IN THIS FORMAT - Use FCN, FIDE, or ALL for DISPLAY
FS STEREOSEARCH
DR 56533-05-2, 57304-74-2, 57606-40-3, 56172-55-5, 129940-97-2, 14536-17-5, 50976-75-5, 154170-90-8, 89924-69-6, 30208-61-8, 259133-78-3
MF C6 H8 O6
CI COM
LC STN Files: ADISNEWS, AGRICOLA, ANABSTR, BEILSTEIN*, BIOBUSINESS, BIOSIS, BIOTECHNO, CA, CABA, CANCERLIT, CAOLD, CAPLUS, CASREACT, CBNB, CEN, CHEMCATS, CHEMINFORMRX, CHEMLIST, CIN, CSCHEM, CSNB, DDFU, DETHERM*, DIOGENES, DIPPR*, DRUGU, EMBASE, ENCOMPLIT, ENCOMPLIT2, ENCOMPPAT, ENCOMPPAT2, GMELIN*, HODOC*, HSDB*, IFICDB, IFIPAT, IFIUDB, IPA, MEDLINE, MRCK*, MSDS-OHS, NAPRALERT, NIOSHTIC, PDLCOM*, PHAR, PHARMASEARCH, PIRA, PROMT, RTECS*, SPECINFO, SYNTHLINE, TOXCENTER, TOXLIT, TULSA, ULIDAT, USAN, USPAT2, USPATFULL, VETU, VTB
(*File contains numerically searchable property data)
Other Sources: DSL**, EINECS**, TSCA**, WHO
(**Enter CHEMLIST File for up-to-date regulatory information)

Absolute stereochemistry.



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

43545 REFERENCES IN FILE CA (1967 TO DATE)
1109 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
43604 REFERENCES IN FILE CAPLUS (1967 TO DATE)
12 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

```
=> fil wpids; d que l21; d que l25; d que l26; d que l30; d que l32; s l21 or l25 or l30
or l32
FILE 'WPIDS' ENTERED AT 11:29:12 ON 27 JAN 2002
COPYRIGHT (C) 2002 DERWENT INFORMATION LTD

FILE LAST UPDATED: 23 JAN 2002              <20020123/UP>
MOST RECENT DERWENT UPDATE            200205   <200205/DW>
DERWENT WORLD PATENTS INDEX SUBSCRIBER FILE, COVERS 1963 TO DATE

>>> SDI'S MAY BE RUN ON EVERY UPDATE OR MONTHLY AS OF JUNE 2001.
    (EVERY UPDATE IS THE DEFAULT). FOR PRICING INFORMATION
    SEE HELP COST <<<

>>> FOR UP-TO-DATE INFORMATION ABOUT THE DERWENT CHEMISTRY
    RESOURCE, PLEASE VISIT
         http://www.derwent.com/chemistryresource/index.html <<<

>>> FOR DETAILS OF THE PATENTS COVERED IN CURRENT UPDATES,
    SEE http://www.derwent.com/dwpi/updates/dwpicov/index.html <<<


L1          7423 SEA FILE=WPIDS ABB=ON  ASCORBIC ACID
L18         4736 SEA FILE=WPIDS ABB=ON  CELL?(3A)FUNCTION?
L19            9 SEA FILE=WPIDS ABB=ON  L1 AND L18
L20        40305 SEA FILE=WPIDS ABB=ON  (CULTUR? OR CULTIVAT?)/TI
L21            5 SEA FILE=WPIDS ABB=ON  L19 NOT L20



L1          7423 SEA FILE=WPIDS ABB=ON  ASCORBIC ACID
L2          6685 SEA FILE=WPIDS ABB=ON  CELL?(3A)PROLIFERAT?
L3            61 SEA FILE=WPIDS ABB=ON  MITOCHONDRIA?(3A)FUNCTION?
L4         22123 SEA FILE=WPIDS ABB=ON  (NA OR SODIUM)(A)(K OR POTASSIUM)
L5           515 SEA FILE=WPIDS ABB=ON  ATPASE#
L6            98 SEA FILE=WPIDS ABB=ON  L4(A)L5
L7           140 SEA FILE=WPIDS ABB=ON  (NA OR SODIUM)(2A)TRANSPORT?
L8           343 SEA FILE=WPIDS ABB=ON  NEPHROTOXIC?
L9          1809 SEA FILE=WPIDS ABB=ON  (RENAL OR KIDNEY)(2A)FAILURE#
L10         1658 SEA FILE=WPIDS ABB=ON  GLOMERULONEPHRITIS OR GLOMERULO
                 NEPHRITIS
L11        80136 SEA FILE=WPIDS ABB=ON  ABRAS?
L12       376085 SEA FILE=WPIDS ABB=ON  CUT#
L13        44824 SEA FILE=WPIDS ABB=ON  BURN#
L14         1022 SEA FILE=WPIDS ABB=ON  EYE?(3A)(INJUR? OR DISEASE#)
L15         2739 SEA FILE=WPIDS ABB=ON  CONJUNCTIV?
L16        17052 SEA FILE=WPIDS ABB=ON  DIABET?
L17         8823 SEA FILE=WPIDS ABB=ON  RHEUMATOID ARTHRITI?
L20        40305 SEA FILE=WPIDS ABB=ON  (CULTUR? OR CULTIVAT?)/TI
L24          149 SEA FILE=WPIDS ABB=ON  L1(2W)?PHOSPHATE?
L25            5 SEA FILE=WPIDS ABB=ON  L24 AND (L2 OR L3 OR L6 OR (L7 OR L8 OR
                 L9 OR L10 OR L11 OR L12 OR L13 OR L14 OR L15 OR L16 OR L17))
                 NOT L20



L1          7423 SEA FILE=WPIDS ABB=ON  ASCORBIC ACID
L3            61 SEA FILE=WPIDS ABB=ON  MITOCHONDRIA?(3A)FUNCTION?
L26            0 SEA FILE=WPIDS ABB=ON  L1 AND L3



L1          7423 SEA FILE=WPIDS ABB=ON  ASCORBIC ACID
```

```
L4          22123 SEA FILE=WPIDS ABB=ON  (NA OR SODIUM)(A)(K OR POTASSIUM)
L5            515 SEA FILE=WPIDS ABB=ON  ATPASE#
L6             98 SEA FILE=WPIDS ABB=ON  L4(A)L5
L7            140 SEA FILE=WPIDS ABB=ON  (NA OR SODIUM)(2A)TRANSPORT?
L8            343 SEA FILE=WPIDS ABB=ON  NEPHROTOXIC?
L9           1809 SEA FILE=WPIDS ABB=ON  (RENAL OR KIDNEY)(2A)FAILURE#
L10          1658 SEA FILE=WPIDS ABB=ON  GLOMERULONEPHRITIS OR GLOMERULO
                  NEPHRITIS
L14          1022 SEA FILE=WPIDS ABB=ON  EYE?(3A)(INJUR? OR DISEASE#)
L15          2739 SEA FILE=WPIDS ABB=ON  CONJUNCTIV?
L30             8 SEA FILE=WPIDS ABB=ON  L1(S)((L6 OR L7 OR L8 OR L9 OR L10) OR
                  L14 OR L15)


L1           7423 SEA FILE=WPIDS ABB=ON  ASCORBIC ACID
L2           6685 SEA FILE=WPIDS ABB=ON  CELL?(3A)PROLIFERAT?
L4          22123 SEA FILE=WPIDS ABB=ON  (NA OR SODIUM)(A)(K OR POTASSIUM)
L5            515 SEA FILE=WPIDS ABB=ON  ATPASE#
L6             98 SEA FILE=WPIDS ABB=ON  L4(A)L5
L7            140 SEA FILE=WPIDS ABB=ON  (NA OR SODIUM)(2A)TRANSPORT?
L8            343 SEA FILE=WPIDS ABB=ON  NEPHROTOXIC?
L9           1809 SEA FILE=WPIDS ABB=ON  (RENAL OR KIDNEY)(2A)FAILURE#
L10          1658 SEA FILE=WPIDS ABB=ON  GLOMERULONEPHRITIS OR GLOMERULO
                  NEPHRITIS
L11         80136 SEA FILE=WPIDS ABB=ON  ABRAS?
L12        376085 SEA FILE=WPIDS ABB=ON  CUT#
L13         44824 SEA FILE=WPIDS ABB=ON  BURN#
L14          1022 SEA FILE=WPIDS ABB=ON  EYE?(3A)(INJUR? OR DISEASE#)
L15          2739 SEA FILE=WPIDS ABB=ON  CONJUNCTIV?
L16         17052 SEA FILE=WPIDS ABB=ON  DIABET?
L17          8823 SEA FILE=WPIDS ABB=ON  RHEUMATOID ARTHRITI?
L20         40305 SEA FILE=WPIDS ABB=ON  (CULTUR? OR CULTIVAT?)/TI
L31             8 SEA FILE=WPIDS ABB=ON  L1 AND (L2 OR L6) AND ((L7 OR L8 OR L9
                  OR L10 OR L11 OR L12 OR L13 OR L14 OR L15 OR L16 OR L17))
L32             7 SEA FILE=WPIDS ABB=ON  L31 NOT L20


L160           25 L21 OR L25 OR L30 OR L32

=> fil medl
FILE 'MEDLINE' ENTERED AT 11:29:22 ON 27 JAN 2002

  FILE LAST UPDATED: 25 JAN 2002 (20020125/UP).  FILE COVERS 1958 TO DATE.

  On April 22, 2001, MEDLINE was reloaded.  See HELP RLOAD for details.

  MEDLINE now contains IN-PROCESS records.  See HELP CONTENT for details.

  MEDLINE is now updated 4 times per week.  A new current-awareness alert
  frequency (EVERYUPDATE) is available.  See HELP UPDATE for more information.

  MEDLINE thesauri in the /CN, /CT, and /MN fields incorporate the
  MeSH 2001 vocabulary.  Enter HELP THESAURUS for details.

  The OLDMEDLINE file segment now contains data from 1958 through 1965.
  Enter HELP CONTENT for details.

  Left, right, and simultaneous left and right truncation are available in the
  Basic Index.  See HELP SFIELDS for details.

  THIS FILE CONTAINS CAS REGISTRY NUMBERS FOR EASY AND ACCURATE
```

SUBSTANCE IDENTIFICATION.

```
=> d que l46; d que l53; s l46 or l53
L33        19812 SEA FILE=MEDLINE ABB=ON  ASCORBIC ACID/CT
L34        13074 SEA FILE=MEDLINE ABB=ON  "NA(+)-K(+)-EXCHANGING ATPASE"/CT
L35         4314 SEA FILE=MEDLINE ABB=ON  ION TRANSPORT/CT
L36        75812 SEA FILE=MEDLINE ABB=ON  MITOCHONDRIA+NT/CT
L37        19755 SEA FILE=MEDLINE ABB=ON  KIDNEY FAILURE, ACUTE+NT/CT
L38        26257 SEA FILE=MEDLINE ABB=ON  GLOMERULONEPHRITIS+NT/CT
L39        29227 SEA FILE=MEDLINE ABB=ON  BURNS+NT/CT
L40           82 SEA FILE=MEDLINE ABB=ON  LACERATIONS/CT
L41        11389 SEA FILE=MEDLINE ABB=ON  CONJUNCTIVITIS+NT/CT
L42        61650 SEA FILE=MEDLINE ABB=ON  ARTHRITIS, RHEUMATOID+NT/CT
L43       146176 SEA FILE=MEDLINE ABB=ON  DIABETES MELLITUS+NT/CT
L44       244478 SEA FILE=MEDLINE ABB=ON  EYE DISEASES+NT/CT
L45        11186 SEA FILE=MEDLINE ABB=ON  EYE INJURIES+NT/CT
L46            8 SEA FILE=MEDLINE ABB=ON  L33 AND (L34 OR L35 OR L36) AND (L37
                  OR L38 OR L39 OR L40 OR L41 OR L42 OR L43 OR L44 OR L45)
```

```
L33        19812 SEA FILE=MEDLINE ABB=ON  ASCORBIC ACID/CT
L34        13074 SEA FILE=MEDLINE ABB=ON  "NA(+)-K(+)-EXCHANGING ATPASE"/CT
L35         4314 SEA FILE=MEDLINE ABB=ON  ION TRANSPORT/CT
L36        75812 SEA FILE=MEDLINE ABB=ON  MITOCHONDRIA+NT/CT
L37        19755 SEA FILE=MEDLINE ABB=ON  KIDNEY FAILURE, ACUTE+NT/CT
L38        26257 SEA FILE=MEDLINE ABB=ON  GLOMERULONEPHRITIS+NT/CT
L39        29227 SEA FILE=MEDLINE ABB=ON  BURNS+NT/CT
L40           82 SEA FILE=MEDLINE ABB=ON  LACERATIONS/CT
L41        11389 SEA FILE=MEDLINE ABB=ON  CONJUNCTIVITIS+NT/CT
L42        61650 SEA FILE=MEDLINE ABB=ON  ARTHRITIS, RHEUMATOID+NT/CT
L43       146176 SEA FILE=MEDLINE ABB=ON  DIABETES MELLITUS+NT/CT
L44       244478 SEA FILE=MEDLINE ABB=ON  EYE DISEASES+NT/CT
L45        11186 SEA FILE=MEDLINE ABB=ON  EYE INJURIES+NT/CT
L47          270 SEA FILE=MEDLINE ABB=ON  ASCORB?(3W)?PHOSPHATE?
L49        10376 SEA FILE=MEDLINE ABB=ON  L33(L)(TU OR PD OR AD OR PK)/CT
L50          150 SEA FILE=MEDLINE ABB=ON  L49 AND L47
L51           11 SEA FILE=MEDLINE ABB=ON  L50 AND (L34 OR L35 OR L36 OR L37 OR
                  L38 OR L39 OR L40 OR L41 OR L42 OR L43 OR L44 OR L45)
L52       726865 SEA FILE=MEDLINE ABB=ON  CULTIVAT? OR CULTUR?
L53            5 SEA FILE=MEDLINE ABB=ON  L51 NOT L52
```

Subheadings =
TU = Therapeutic use
PD = pharmacology
AD = administration & dosage
PK = pharmacokinetics

```
L161          13 L46 OR L53
```

```
=> fil embase; d que l71; d que l74; d que l77; s l71 or l74 or l77
FILE 'EMBASE' ENTERED AT 11:29:46 ON 27 JAN 2002
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 FILE COVERS 1974 TO 24 Jan 2002 (20020124/ED)

 EMBASE has been reloaded. Enter HELP RLOAD for details.

 This file contains CAS Registry Numbers for easy and accurate
 substance identification.

L54        22803 SEA FILE=EMBASE ABB=ON  ASCORBIC ACID/CT
L55        12577 SEA FILE=EMBASE ABB=ON  "ADENOSINE TRIPHOSPHATASE (POTASSIUM
                 SODIUM)"/CT
L56         6094 SEA FILE=EMBASE ABB=ON  SODIUM TRANSPORT/CT
L57        39622 SEA FILE=EMBASE ABB=ON  MITOCHONDRION+NT/CT
```

```
L58        9694 SEA FILE=EMBASE ABB=ON  CELL FUNCTION/CT
L59        9135 SEA FILE=EMBASE ABB=ON  ACUTE KIDNEY FAILURE+NT/CT
L60       15574 SEA FILE=EMBASE ABB=ON  GLOMERULONEPHRITIS+NT/CT
L61       18099 SEA FILE=EMBASE ABB=ON  BURN+NT/CT
L62        1375 SEA FILE=EMBASE ABB=ON  ABRASION+NT/CT
L63        1192 SEA FILE=EMBASE ABB=ON  LACERATION/CT
L64       10334 SEA FILE=EMBASE ABB=ON  CONJUNCTIVITIS+NT/CT
L65       44641 SEA FILE=EMBASE ABB=ON  RHEUMATOID ARTHRITIS+NT/CT
L66      131135 SEA FILE=EMBASE ABB=ON  DIABETES MELLITUS+NT/CT
L67      218044 SEA FILE=EMBASE ABB=ON  EYE DISEASE+NT/CT
L68        9850 SEA FILE=EMBASE ABB=ON  EYE INJURY+NT/CT
L70        4155 SEA FILE=EMBASE ABB=ON  L54(L)(DT OR PD OR PK OR DO)/CT
L71           6 SEA FILE=EMBASE ABB=ON  L70 AND (L55 OR L56 OR L57 OR L58) AND
                (L59 OR L60 OR L61 OR L62 OR L63 OR L64 OR L65 OR L66 OR L67
                OR L68)
```

Subheadings
DT = drug therapy
PD = pharmacology
PK = pharmacokinetics
DO = dosage

```
L54       22803 SEA FILE=EMBASE ABB=ON  ASCORBIC ACID/CT
L55       12577 SEA FILE=EMBASE ABB=ON  "ADENOSINE TRIPHOSPHATASE (POTASSIUM
                SODIUM)"/CT
L56        6094 SEA FILE=EMBASE ABB=ON  SODIUM TRANSPORT/CT
L57       39622 SEA FILE=EMBASE ABB=ON  MITOCHONDRION+NT/CT
L58        9694 SEA FILE=EMBASE ABB=ON  CELL FUNCTION/CT
L59        9135 SEA FILE=EMBASE ABB=ON  ACUTE KIDNEY FAILURE+NT/CT
L60       15574 SEA FILE=EMBASE ABB=ON  GLOMERULONEPHRITIS+NT/CT
L61       18099 SEA FILE=EMBASE ABB=ON  BURN+NT/CT
L62        1375 SEA FILE=EMBASE ABB=ON  ABRASION+NT/CT
L63        1192 SEA FILE=EMBASE ABB=ON  LACERATION/CT
L64       10334 SEA FILE=EMBASE ABB=ON  CONJUNCTIVITIS+NT/CT
L65       44641 SEA FILE=EMBASE ABB=ON  RHEUMATOID ARTHRITIS+NT/CT
L66      131135 SEA FILE=EMBASE ABB=ON  DIABETES MELLITUS+NT/CT
L67      218044 SEA FILE=EMBASE ABB=ON  EYE DISEASE+NT/CT
L68        9850 SEA FILE=EMBASE ABB=ON  EYE INJURY+NT/CT
L69          14 SEA FILE=EMBASE ABB=ON  L54 AND (L55 OR L56 OR L57 OR L58) AND
                (L59 OR L60 OR L61 OR L62 OR L63 OR L64 OR L65 OR L66 OR L67
                OR L68)
L73        3592 SEA FILE=EMBASE ABB=ON  (ANTIOXIDANTS OR UVB)/TI
L74           3 SEA FILE=EMBASE ABB=ON  L69 AND L73
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                SODIUM)"/CT
L56        6094 SEA FILE=EMBASE ABB=ON  SODIUM TRANSPORT/CT
L57       39622 SEA FILE=EMBASE ABB=ON  MITOCHONDRION+NT/CT
L58        9694 SEA FILE=EMBASE ABB=ON  CELL FUNCTION/CT
L59        9135 SEA FILE=EMBASE ABB=ON  ACUTE KIDNEY FAILURE+NT/CT
L60       15574 SEA FILE=EMBASE ABB=ON  GLOMERULONEPHRITIS+NT/CT
L61       18099 SEA FILE=EMBASE ABB=ON  BURN+NT/CT
L62        1375 SEA FILE=EMBASE ABB=ON  ABRASION+NT/CT
L63        1192 SEA FILE=EMBASE ABB=ON  LACERATION/CT
L64       10334 SEA FILE=EMBASE ABB=ON  CONJUNCTIVITIS+NT/CT
L65       44641 SEA FILE=EMBASE ABB=ON  RHEUMATOID ARTHRITIS+NT/CT
L66      131135 SEA FILE=EMBASE ABB=ON  DIABETES MELLITUS+NT/CT
L67      218044 SEA FILE=EMBASE ABB=ON  EYE DISEASE+NT/CT
L68        9850 SEA FILE=EMBASE ABB=ON  EYE INJURY+NT/CT
L75         252 SEA FILE=EMBASE ABB=ON  ASCORBIC ACID(5W)?PHOSPHATE?
L76         140 SEA FILE=EMBASE ABB=ON  L54 AND L75
L77           6 SEA FILE=EMBASE ABB=ON  L76 AND (L55 OR L56 OR L57 OR L58 OR
                L59 OR L60 OR L61 OR L62 OR L63 OR L64 OR L65 OR L66 OR L67 OR
                L68)
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L162 14 L71 OR L74 OR L77

=> fil capl; d que l106; d que l137; d que l159; s l106 or l137 or l159
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L78 (4)SEA FILE=REGISTRY ABB=ON "ASCORBIC ACID 2-PHOSPHATE"/CN OR "ASCORBIC ACID 2-TRIPHOSPHATE"/CN OR "ASCORBIC ACID 5-PHOSPHATE "/CN OR "ASCORBIC ACID 6-PHOSPHATE"/CN
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L80 (97)SEA FILE=REGISTRY ABB=ON ASCORBIC ACID(2W)PHOSPHATE(2W)SALT
L81 (323)SEA FILE=CAPLUS ABB=ON L78 OR L79
L82 (511)SEA FILE=CAPLUS ABB=ON L80
L83 (609)SEA FILE=CAPLUS ABB=ON ASCORB?(2W)PHOSPHATE/OBI
L84 (3)SEA FILE=CAPLUS ABB=ON PHOSPHOASCORBIC ACID/OBI
L85 (447)SEA FILE=CAPLUS ABB=ON ASCORBIC ACID(2A)PHOSPHATE/OBI
L86 (70219)SEA FILE=CAPLUS ABB=ON ATPASE#
L87 (20375)SEA FILE=CAPLUS ABB=ON (NA OR SODIUM)(3A)(K OR POTASSIUM)(3A)L 86
L88 (809)SEA FILE=CAPLUS ABB=ON PROTEIN#/OBI(L)L87
L89 (55948)SEA FILE=CAPLUS ABB=ON CELL?(L)PROLIFERAT?/OBI
L90 (83562)SEA FILE=CAPLUS ABB=ON MITOCHONDRIA?/OBI
L91 (30612)SEA FILE=CAPLUS ABB=ON (NA OR SODIUM)(L)TRANSPORT?/OBI

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L92 (     17249)SEA FILE=CAPLUS ABB=ON  CELL?(3A)FUNCTION?/OBI
L93 (        29)SEA FILE=CAPLUS ABB=ON  (L81 OR L82 OR L83 OR L84 OR L85) AND
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L94 (      8687)SEA FILE=CAPLUS ABB=ON  INJURY/CW
L95 (      2268)SEA FILE=CAPLUS ABB=ON  REGENERATION/CW(L)ANIMAL
L96 (      8357)SEA FILE=CAPLUS ABB=ON  NEPHROTOXIC?
L97 (      3036)SEA FILE=CAPLUS ABB=ON  HALOGENAT?(L)HYDROCARBON#/OBI
L98 (     11856)SEA FILE=CAPLUS ABB=ON  (KIDNEY# OR RENAL)(L)FAILURE/OBI
L99 (      3591)SEA FILE=CAPLUS ABB=ON  GLOMERULONEPHRIT?/OBI
L100(       238)SEA FILE=CAPLUS ABB=ON  SKIN/CW(L)(ABRA? OR CUT# OR BURN#)
L101(       739)SEA FILE=CAPLUS ABB=ON  EYE#(L)INJUR?/OBI
L102(     11930)SEA FILE=CAPLUS ABB=ON  EYE#(L)(DISEASE# OR DISORDER#)/OBI
L103(       154)SEA FILE=CAPLUS ABB=ON  CONJUCTIV?
L104(      1971)SEA FILE=CAPLUS ABB=ON  EYE#/OBI AND (DIABETES OR RHEUMATOID(A)
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L105(      4880)SEA FILE=CAPLUS ABB=ON  CONJUNCTIV?
L106(         2)SEA FILE=CAPLUS ABB=ON  L93 AND ((L94 OR L95 OR L96 OR L97 OR
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L107(         2)SEA FILE=REGISTRY ABB=ON  "ASCORBIC ACID"/CN
L108(         4)SEA FILE=REGISTRY ABB=ON  "ASCORBIC ACID 2-PHOSPHATE"/CN OR
               "ASCORBIC ACID 2-TRIPHOSPHATE"/CN OR "ASCORBIC ACID 5-PHOSPHATE
               "/CN OR "ASCORBIC ACID 6-PHOSPHATE"/CN
L109(         1)SEA FILE=REGISTRY ABB=ON  "ASCORBIC ACID PHOSPHATE"/CN
L110(        97)SEA FILE=REGISTRY ABB=ON  ASCORBIC ACID(2W)PHOSPHATE(2W)SALT
L111(     43996)SEA FILE=CAPLUS ABB=ON  L107
L112(       323)SEA FILE=CAPLUS ABB=ON  L108 OR L109
L113(       511)SEA FILE=CAPLUS ABB=ON  L110
L114(       609)SEA FILE=CAPLUS ABB=ON  ASCORB?(2W)PHOSPHATE/OBI
L115(         3)SEA FILE=CAPLUS ABB=ON  PHOSPHOASCORBIC ACID/OBI
L116(       447)SEA FILE=CAPLUS ABB=ON  ASCORBIC ACID(2A)PHOSPHATE/OBI
L117(     70219)SEA FILE=CAPLUS ABB=ON  ATPASE#
L118(     20375)SEA FILE=CAPLUS ABB=ON  (NA OR SODIUM)(3A)(K OR POTASSIUM)(3A)L
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L119(       809)SEA FILE=CAPLUS ABB=ON  PROTEIN#/OBI(L)L118
L120(     55948)SEA FILE=CAPLUS ABB=ON  CELL?(L)PROLIFERAT?/OBI
L121(     83562)SEA FILE=CAPLUS ABB=ON  MITOCHONDRIA?/OBI
L122(     30612)SEA FILE=CAPLUS ABB=ON  (NA OR SODIUM)(L)TRANSPORT?/OBI
L123(     17249)SEA FILE=CAPLUS ABB=ON  CELL?(3A)FUNCTION?/OBI
L124(      8687)SEA FILE=CAPLUS ABB=ON  INJURY/CW
L125(      2268)SEA FILE=CAPLUS ABB=ON  REGENERATION/CW(L)ANIMAL
L126(      8357)SEA FILE=CAPLUS ABB=ON  NEPHROTOXIC?
L127(      3036)SEA FILE=CAPLUS ABB=ON  HALOGENAT?(L)HYDROCARBON#/OBI
L128(     11856)SEA FILE=CAPLUS ABB=ON  (KIDNEY# OR RENAL)(L)FAILURE/OBI
L129(      3591)SEA FILE=CAPLUS ABB=ON  GLOMERULONEPHRIT?/OBI
L130(       238)SEA FILE=CAPLUS ABB=ON  SKIN/CW(L)(ABRA? OR CUT# OR BURN#)
L131(       739)SEA FILE=CAPLUS ABB=ON  EYE#(L)INJUR?/OBI
L132(     11930)SEA FILE=CAPLUS ABB=ON  EYE#(L)(DISEASE# OR DISORDER#)/OBI
L133(       154)SEA FILE=CAPLUS ABB=ON  CONJUCTIV?
L134(      1971)SEA FILE=CAPLUS ABB=ON  EYE#/OBI AND (DIABETES OR RHEUMATOID(A)
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L135(      5597)SEA FILE=CAPLUS ABB=ON  ((L111 OR L112 OR L113 OR L114 OR L115
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L136(      4880)SEA FILE=CAPLUS ABB=ON  CONJUNCTIV?  THU - therapeutic use
L137(        12)SEA FILE=CAPLUS ABB=ON  L135 AND (L119 OR L120 OR L121 OR L122
               OR L123) AND (L124 OR L125 OR L126 OR L127 OR L128 OR L129 OR
               L130 OR L131 OR L132 OR L133 OR L134 OR L136)


L138(         2)SEA FILE=REGISTRY ABB=ON  "ASCORBIC ACID"/CN
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L139(     70219)SEA FILE=CAPLUS ABB=ON  ATPASE#
L140(     20375)SEA FILE=CAPLUS ABB=ON  (NA OR SODIUM)(3A)(K OR POTASSIUM)(3A)L
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L141(       809)SEA FILE=CAPLUS ABB=ON  PROTEIN#/OBI(L)L140
L142(     55948)SEA FILE=CAPLUS ABB=ON  CELL?(L)PROLIFERAT?/OBI
L143(     83562)SEA FILE=CAPLUS ABB=ON  MITOCHONDRIA?/OBI
L144(     30612)SEA FILE=CAPLUS ABB=ON  (NA OR SODIUM)(L)TRANSPORT?/OBI
L145(     17249)SEA FILE=CAPLUS ABB=ON  CELL?(3A)FUNCTION?/OBI
L146(      8687)SEA FILE=CAPLUS ABB=ON  INJURY/CW
L147(      2268)SEA FILE=CAPLUS ABB=ON  REGENERATION/CW(L)ANIMAL
L148(      8357)SEA FILE=CAPLUS ABB=ON  NEPHROTOXIC?
L149(      3036)SEA FILE=CAPLUS ABB=ON  HALOGENAT?(L)HYDROCARBON#/OBI
L150(     11856)SEA FILE=CAPLUS ABB=ON  (KIDNEY# OR RENAL)(L)FAILURE/OBI
L151(      3591)SEA FILE=CAPLUS ABB=ON  GLOMERULONEPHRIT?/OBI
L152(       238)SEA FILE=CAPLUS ABB=ON  SKIN/CW(L)(ABRA? OR CUT# OR BURN#)
L153(       739)SEA FILE=CAPLUS ABB=ON  EYE#(L)INJUR?/OBI
L154(     11930)SEA FILE=CAPLUS ABB=ON  EYE#(L)(DISEASE# OR DISORDER#)/OBI
L155(       154)SEA FILE=CAPLUS ABB=ON  CONJUCTIV?
L156(      1971)SEA FILE=CAPLUS ABB=ON  EYE#/OBI AND (DIABETES OR RHEUMATOID(A)
                ARTHRITIS)
L157(       215)SEA FILE=CAPLUS ABB=ON  L138/D(L)SALT#
L158(      4880)SEA FILE=CAPLUS ABB=ON  CONJUNCTIV?
L159          7 SEA FILE=CAPLUS ABB=ON  L157 AND ((L141 OR L142 OR L143 OR
                L144 OR L145) OR (L146 OR L147 OR L148 OR L149 OR L150 OR L151
                OR L152 OR L153 OR L154 OR L155 OR L156) OR L158)


L163         19 L106 OR L137 OR L159

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PROCESSING COMPLETED FOR L163
PROCESSING COMPLETED FOR L162
PROCESSING COMPLETED FOR L160
L164         68 DUP REM L161 L163 L162 L160 (3 DUPLICATES REMOVED)
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                ANSWERS '14-32' FROM FILE CAPLUS
                ANSWERS '33-43' FROM FILE EMBASE
                ANSWERS '44-68' FROM FILE WPIDS

=> d ibib ab hitrn 1-68; fil hom

L164 ANSWER 1 OF 68     MEDLINE                          DUPLICATE 1
ACCESSION NUMBER:    95138635     MEDLINE
DOCUMENT NUMBER:     95138635   PubMed ID: 7836862
TITLE:               Effect of ascorbic acid 2-O-alpha-glucoside on
                     hydrocortisone-induced cataract formation in developing
                     chick embryos: II. Influence on glutathione and lipid
                     peroxide contents in the lens.
AUTHOR:              Nagata M; Hikida M; Mibu H; Muto N; Yamamoto I
```

CORPORATE SOURCE: Central Research Laboratories, Santen Pharmaceutical Co., Ltd., Osaka, Japan.
SOURCE: JOURNAL OF OCULAR PHARMACOLOGY, (1994 Fall) 10 (3) 537-42. Journal code: IRG; 8511297. ISSN: 8756-3320.
PUB. COUNTRY: United States
Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199502
ENTRY DATE: Entered STN: 19950314
Last Updated on STN: 19950314
Entered Medline: 19950227

AB In developing chick embryos, hydrocortisone induces cataract formation following a decrease in lens glutathione content but an increase in lipid peroxide content in lens, blood and liver. The preventive effects of ascorbic acid 2-O-alpha-glucoside (AA-2G) on these parameters were compared on cataract formation with those of ascorbic acid (AsA) and **ascorbic** acid 2-O-**phosphate** (AA-2P). In these tissues, AA-2G inhibited a decrease in glutathione content and an increase in lipid peroxide content more effectively than either AsA or AA-2P. Various tissues including lens and liver have alpha-glucosidase activity, strongly suggesting that AsA is enzymatically liberated from AA-2G in these tissues. In summary, these results suggest that AA-2G exerts a potent anti-cataract activity via a reduction in oxidative damage through AsA release.

L164 ANSWER 2 OF 68 MEDLINE DUPLICATE 2
ACCESSION NUMBER: 93252299 MEDLINE
DOCUMENT NUMBER: 93252299 PubMed ID: 8486304
TITLE: **Ascorbic** acid **phosphate** ester and wound healing in rabbit corneal alkali burns: epithelial basement membrane and stroma.
AUTHOR: Saika S; Uenoyama K; Hiroi K; Tanioka H; Takase K; Hikita M
CORPORATE SOURCE: Department of Ophthalmology, Wakayama Medical College, Japan.
SOURCE: GRAEFES ARCHIVE FOR CLINICAL AND EXPERIMENTAL OPHTHALMOLOGY, (1993 Apr) 231 (4) 221-7. Journal code: FPR; 8205248. ISSN: 0721-832X.
PUB. COUNTRY: GERMANY: Germany, Federal Republic of
Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199306
ENTRY DATE: Entered STN: 19930618
Last Updated on STN: 19930618
Entered Medline: 19930607

AB We examined the effect of L-**ascorbic** acid 2-**phosphate** (P-Asc) on the healing of alkali-burned corneas in rabbits. Round filter paper containing 1 N NaOH was applied to the central cornea for 60 or 120 s to produce the alkali burn. Animals were treated with topical saline, 10% ascorbate, or 6.5% P-Asc applied on the cornea. The corneas were then examined histologically. Burned stroma showed no toluidine blue staining, indicating a loss of glycosaminoglycan. In the 60-s burn group, P-Asc reduced the size of the unstained area as compared with the control. Transmission electron microscopy showed basal lamina under new epithelia in the corneas treated with ascorbate or P-Asc, but not in controls. These observations support the theory that P-Asc may have a therapeutic role in the repair of corneal alkali burns.

L164 ANSWER 3 OF 68 MEDLINE DUPLICATE 3
ACCESSION NUMBER: 93217344 MEDLINE
DOCUMENT NUMBER: 93217344 PubMed ID: 8463733
TITLE: Effect of ascorbic acid 2-O-alpha-glucoside on

hydrocortisone-induced cataract formation in developing chick embryos: I. Comparison of the preventive effect of ascorbic acid derivatives.
AUTHOR: Nagata M; Tanioka H; Mibu H; Hikida M; Akiba M; Yamamoto I
CORPORATE SOURCE: Central Research Laboratories, Santen Pharmaceutical Co., Ltd., Osaka, Japan.
SOURCE: JOURNAL OF OCULAR PHARMACOLOGY, (1993 Spring) 9 (1) 59-68. Journal code: IRG; 8511297. ISSN: 8756-3320.
PUB. COUNTRY: United States
Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199305
ENTRY DATE: Entered STN: 19930521
Last Updated on STN: 19930521
Entered Medline: 19930506

AB The effect of ascorbic acid 2-O-alpha-glucoside (AA-2G) on hydrocortisone (HC)-induced lens opacity in developing chick embryo was examined and compared with those of ascorbic acid (AsA) and **ascorbic** acid 2-**phosphate** (AA-2P). The opacity was dose-dependently inhibited by a single administration of 10 or 20 mumol/egg of AA-2G and by three repeated administrations of 1, 3 or 10 mumol/egg of AA-2G. AA-2G was the most effective among the three compounds. Glucose did not enhance the preventive effect of AsA against HC-induced opacity, and neither dehydro ascorbic acid nor glucose also prevented HC-induced cataract. In the histological study, we observed many small vacuoles in the nuclear region of the opaque lens treated with HC. AA-2G inhibited the formation of such vacuoles, an effect closely correlated with the prevention of cataract formation.

L164 ANSWER 4 OF 68 MEDLINE
ACCESSION NUMBER: 2001089993 MEDLINE
DOCUMENT NUMBER: 20446255 PubMed ID: 10987997
TITLE: Protective effect of boldine on oxidative mitochondrial damage in streptozotocin-induced diabetic rats.
AUTHOR: Jang Y Y; Song J H; Shin Y K; Han E S; Lee C S
CORPORATE SOURCE: Department of Pharmacology, College of Medicine, Chung-Ang University, Seoul, 156-756, Korea.
SOURCE: PHARMACOLOGICAL RESEARCH, (2000 Oct) 42 (4) 361-71. Journal code: PHC. ISSN: 1043-6618.
PUB. COUNTRY: ENGLAND: United Kingdom
Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 200101
ENTRY DATE: Entered STN: 20010322
Last Updated on STN: 20010322
Entered Medline: 20010125

AB Increased oxidative stress has been suggested to be involved in the pathogenesis and progression of diabetic tissue damage. Several antioxidants have been described as beneficial for oxidative stress-associated diseases. Boldine ([s]-2,9-dihydroxy-1, 10-dimethoxyaporphine) is a major alkaloid found in the leaves and bark of boldo (Peumus boldus Molina), and has been shown to possess antioxidant activity and anti-inflammatory effects. From this point of view, the possible anti-diabetic effect of boldine and its mechanism were evaluated. The experiments were performed on male rats divided into four groups: control, boldine (100 mg kg(-1), daily in drinking water), diabetic [single dose of 80 mg kg(-1)of streptozotocin (STZ), i.p.] and diabetic simultaneously fed with boldine for 8 weeks. Diabetic status was evaluated periodically with changes of plasma glucose levels and body weight in rats. The effect of boldine on the STZ-induced diabetic rats was examined with the formation of malondialdehydes and carbonyls and the activities of

DOCUMENT NUMBER: 98369523 PubMed ID: 9703900
TITLE: Uncoupling of incorporation of ascorbic acid and apoptosis induction.
AUTHOR: Amano Y; Sakagami H; Tanaka T; Yamanaka Y; Nishimoto Y; Yamaguchi M; Takeda M
CORPORATE SOURCE: Department of Biochemistry, School of Medicine, Showa University, Tokyo, Japan.
SOURCE: ANTICANCER RESEARCH, (1998 Jul-Aug) 18 (4A) 2503-6. Journal code: 59L; 8102988. ISSN: 0250-7005.
PUB. COUNTRY: Greece
Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199809
ENTRY DATE: Entered STN: 19980910
Last Updated on STN: 19980910
Entered Medline: 19980901

AB Exposure of human promyelocytic leukemic HL-60 cells to millimolar concentration of sodium ascorbate induced apoptotic cell death. The extent of apoptosis induction was a positive function of temperature at the time of exposure. The incorporation of [1-14C] ascorbic acid into the cytosolic fraction of HL-60 cells was also temperature-dependent, and competitively inhibited by active analogs (L-ascorbic acid, sodium L-ascorbate, D-isoascorbic acid, sodium 6-beta-O-galactosyl-L-ascorbate, sodium 5,6-benzylidene-L-ascorbate), but not by inactive analogs (L-**ascorbic** acid-2-**phosphate** magnesium, L-ascorbic acid 2-sulfate). Calcium depletion, which had considerably reduced the apoptosis-inducing activity of sodium ascorbate, did not affect the intracellular incorporation of [14C] ascorbic acid. These data suggests that cell death might not be simply induced by the intracellular incorporation of ascorbate, but rather initiated by the rapid elevation of intracellular Ca2+ concentration, possibly mediated by an as yet unidentified temperature-sensitive mechanism.

L164 ANSWER 7 OF 68 MEDLINE
ACCESSION NUMBER: 96368720 MEDLINE
DOCUMENT NUMBER: 96368720 PubMed ID: 8772728
TITLE: Abnormalities of retinal metabolism in diabetes or experimental galactosemia. III. Effects of antioxidants.
AUTHOR: Kowluru R A; Kern T S; Engerman R L; Armstrong D
CORPORATE SOURCE: Department of Ophthalmology and Visual Sciences, University of Wisconsin-Madison 53706-1532, USA.
CONTRACT NUMBER: EY00300 (NEI)
SOURCE: DIABETES, (1996 Sep) 45 (9) 1233-7. Journal code: E8X; 0372763. ISSN: 0012-1797.
PUB. COUNTRY: United States
Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Abridged Index Medicus Journals; Priority Journals
ENTRY MONTH: 199610
ENTRY DATE: Entered STN: 19961022
Last Updated on STN: 20000303
Entered Medline: 19961008

AB Effects of antioxidants on hyperglycemia-induced alterations of retinal metabolism were evaluated in rats diabetic or experimentally galactosemic for 2 months. Oxidative stress was estimated by measuring lipid peroxides (measured as thiobarbituric acid reactive substances [TBARS]) in retina and plasma. Erythrocyte osmotic fragility, another measure of oxidative stress, also was determined in the same groups of rats. In diabetic rats, TBARS were elevated by 74% in retina and 87% in plasma. In galactose-fed rats, TBARS were significantly elevated in retina ($P < 0.05$), but were normal in plasma. The administration of supplemental dietary ascorbic acid and alpha-tocopherol acetate for 2 months prevented the elevation of

endogenous antioxidant enzymes (superoxide dismutase and glutathione peroxidase) in mitochondria of the pancreas, kidney and liver. The scavenging action of boldine on oxygen free radicals and the effect on mitochondrial free-radical production were also investigated. The treatment of boldine attenuated the development of hyperglycemia and weight loss induced by STZ injection in rats. The levels of malondialdehyde (MDA) and carbonyls in liver, kidney and pancreas mitochondria were significantly increased in STZ-treated rats and decreased after boldine administration. The activities of mitochondrial manganese superoxide dismutase (MnSOD) in the liver, pancreas and kidney were significantly elevated in STZ-treated rats. Boldine administration decreased STZ-induced elevation of MnSOD activity in kidney and pancreas mitochondria, but not in liver mitochondria. In the STZ-treated group, glutathione peroxidase activities decreased in liver mitochondria, and were elevated in pancreas and kidney mitochondria. The boldine treatment restored the altered enzyme activities in the liver and pancreas, but not the kidney. Boldine attenuated both STZ- and iron plus ascorbate-induced MDA and carbonyl formation and thiol oxidation in the pancreas homogenates. Boldine decomposed superoxide anions, hydrogen peroxides and hydroxyl radicals in a dose-dependent manner. The alkaloid significantly attenuated the production of superoxide anions, hydrogen peroxide and nitric oxide caused by liver mitochondria. The results indicate that boldine may exert an inhibitory effect on STZ-induced oxidative tissue damage and altered antioxidant enzyme activity by the decomposition of reactive oxygen species and inhibition of nitric oxide production and by the reduction of the peroxidation-induced product formation. Boldine may attenuate the development of STZ-induced diabetes in rats and interfere with the role of oxidative stress, one of the pathogeneses of diabetes mellitus.

L164 ANSWER 5 OF 68 MEDLINE
ACCESSION NUMBER: 1999453487 MEDLINE
DOCUMENT NUMBER: 99453487 PubMed ID: 10523962
TITLE: [Antioxidative activity of histochrome and some other drugs used in ophthalmology].
Antioksidantnaia aktivnost' gistokhroma i nekotorykh lekarstvennykh preparatov, primeniaemykh v oftal'mologii.
AUTHOR: Babenkova I V; Teselkin Iu O; Makashova N V; Guseva M R
SOURCE: VESTNIK OFTALMOLOGII, (1999 Jul-Aug) 115 (4) 22-4.
Journal code: XAO; 0415216. ISSN: 0042-465X.
PUB. COUNTRY: RUSSIA: Russian Federation
Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: Russian
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199912
ENTRY DATE: Entered STN: 20000113
Last Updated on STN: 20000113
Entered Medline: 19991201

AB The antioxidative activity (AOA) of histochrome (2,3,5,6,8-pentahydroxy-7-ethyl-1,4-naphthoquinone) and some other drugs with antioxidant properties used in ophthalmology has been studied in the hemoglobin--hydrogen peroxide--luminol system. The AOA of histochrome, ascorbate, dicinon, rutin, quercetin, and dihydroquercetin is comparable to that of trolox, the reference antioxidant in our studies. The drugs (in physiological concentrations) listed above are characterized by a high AOA. Cerebrolysin was 300 times less active than trolox, and emoxipin showed no antioxidant properties. Lacrimal AOA increased after a parabulbar injection of histochrome. Histochrome is believed to be a perspective antioxidant for the treatment of ocular diseases.

L164 ANSWER 6 OF 68 MEDLINE
ACCESSION NUMBER: 1998369523 MEDLINE

retinal TBARS and the decrease of Na(+)-K(+)-ATPase and calcium ATPase activities in retinas of diabetic animals without having any beneficial effect on plasma TBARS. In galactosemic rats, these antioxidants had a partial beneficial effect on the activity of retinal Na(+)-K(+)-ATPase, but failed to have any effect on calcium ATPase. The beneficial effects of antioxidants in diabetes and experimental galactosemia were not caused by the amelioration of hyperglycemia or retinal polyol accumulation. Erythrocyte osmotic fragility was increased by more than twofold in diabetes, but was normal in experimental galactosemia, and antioxidants prevented diabetes-induced increases in erythrocyte osmotic fragility-Diabetes-induced increased oxidative stress and subnormal ATPase activities in the retina can be inhibited by dietary supplementation with antioxidants.

L164 ANSWER 8 OF 68 MEDLINE
ACCESSION NUMBER: 94180120 MEDLINE
DOCUMENT NUMBER: 94180120 PubMed ID: 8133289
TITLE: Muscle mitochondrial ATP production in progressive supranuclear palsy.
AUTHOR: Di Monte D A; Harati Y; Jankovic J; Sandy M S; Jewell S A; Langston J W
CORPORATE SOURCE: Parkinson's Institute, Sunnyvale, California.
SOURCE: JOURNAL OF NEUROCHEMISTRY, (1994 Apr) 62 (4) 1631-4.
Journal code: JAV; 2985190R. ISSN: 0022-3042.
PUB. COUNTRY: United States
Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199404
ENTRY DATE: Entered STN: 19940428
Last Updated on STN: 19940428
Entered Medline: 19940420

AB Six patients with progressive supranuclear palsy (PSP) and 12 age-matched disease-free subjects participated in this study designed to compare rates of ATP production by intact mitochondria from biopsied skeletal muscle. When pyruvate and malate were used as metabolic substrates, rates of ATP production were 0.184 +/- 0.025 mumol/min/U of citrate synthase (CS) activity (a mitochondrial marker) in control subjects and 0.131 +/- 0.051 mumol/min/U of CS in PSP patients. In the presence of succinate, rates of ATP formation were 0.137 +/- 0.02 mumol/min/U of CS in controls and 0.109 +/- 0.04 mumol/min/U of CS in patients. With N,N,N',N'-tetramethyl-p-phenylenediamine (TMPD) and ascorbate, rates were 0.034 +/- 0.008 mumol/min/U of CS in controls and 0.022 +/- 0.01 mumol/min/U of CS in PSP subjects. Differences between the control and PSP populations reached statistical significance with pyruvate/malate and TMPD/ascorbate. No differences in either muscle histopathology or histochemistry were found between patient and control subjects. Results of this study suggest that oxidative phosphorylation defects occur in muscle mitochondria from patients with PSP.

L164 ANSWER 9 OF 68 MEDLINE
ACCESSION NUMBER: 94208664 MEDLINE
DOCUMENT NUMBER: 94208664 PubMed ID: 8157113
TITLE: A physiological level of ascorbate inhibits galactose cataract in guinea pigs by decreasing polyol accumulation in the lens epithelium: a dehydroascorbate-linked mechanism.
AUTHOR: Yokoyama T; Sasaki H; Giblin F J; Reddy V N
CORPORATE SOURCE: Eye Research Institute, Oakland University, Rochester, MI 48309-4401.
CONTRACT NUMBER: EY00484 (NEI)
EY02027 (NEI)
EY05230 (NEI)

SOURCE: EXPERIMENTAL EYE RESEARCH, (1994 Feb) 58 (2) 207-18.
Journal code: EPL; 0370707. ISSN: 0014-4835.
PUB. COUNTRY: ENGLAND: United Kingdom
Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199405
ENTRY DATE: Entered STN: 19940526
Last Updated on STN: 19980206
Entered Medline: 19940517

AB It was reported previously that dietary ascorbate (ASC) delays the development of galactose-induced cataract in guinea pigs compared to the rate which is observed in ASC-deficient animals. Experiments were conducted to explore the possible mechanism of this phenomenon. Guinea pigs were fed for a period of up to 4 weeks either a normal diet (1 g ASC/kg diet) or a scorbutic diet (< 0.04 g ASC/kg diet) combined with 10% galactose in the drinking water. After 2 weeks, levels of ASC in animals on the scorbutic diet decreased by 95% in the aqueous humor and by 78% in the lens. Slit lamp examination showed that galactose-induced vacuoles in the lens equator formed at a significantly faster rate in the scorbutic animals. However, examination of biochemical parameters in whole lenses of the two groups of animals after 2 weeks showed no significant differences with regard to accumulation of galactose and galactitol, decreases in the levels of myoinositol, taurine and GSH or changes in cation concentrations. In order to examine possible regional changes in the lenses, various parameters were studied in the lens capsule-epithelium. On day 4, the capsule epithelia of scorbutic animals on a galactose diet had a content of galactitol two-and-a-half times higher than that of normal galactose-fed animals. Scorbutic conditions also intensified the loss of Na(+)-K+ ATPase activity in the lens capsule-epithelium caused by galactose feeding. Oxidized glutathione was not detectable in the lens capsule epithelia of any of the animals studied. Hexose monophosphate shunt activity was elevated in lenses of normal galactose-fed animals during the first hour of culture after death whereas lenses of scorbutic galactose-fed animals were not. Consistent with the in vivo findings, galactitol accumulation in dog lens epithelial cells exposed to 30 mM galactose was significantly inhibited by the presence of either ASC or dehydroascorbate (DHA) in the medium. Hexose monophosphate shunt activity in the cells was stimulated to two-and-a-half times its initial level by either 1 mM DHA or 30 mM galactose and slightly more than three-fold by a combination of the two challenges. The results suggest that decreased polyol accumulation in the lens epithelium of the normal galactose-fed guinea pig, which has a high level of ASC in the aqueous humor, accounts for the delay in onset of cataract compared to that for the ASC-deficient animal.(ABSTRACT TRUNCATED AT 400 WORDS)

L164 ANSWER 10 OF 68 MEDLINE

ACCESSION NUMBER: 89235388 MEDLINE
DOCUMENT NUMBER: 89235388 PubMed ID: 2854548
TITLE: The evaluation of therapeutic efficacy of hachimi-jio-gan (traditional Chinese medicine) to mouse hereditary cataract.
AUTHOR: Kamei A; Hisada T; Iwata S
CORPORATE SOURCE: Department of Biophysical Chemistry, Faculty of Pharmaceutical Sciences, Meijo University, Nagoya, Japan.
SOURCE: JOURNAL OF OCULAR PHARMACOLOGY, (1988 Winter) 4 (4) 311-9.
Journal code: IRG; 8511297. ISSN: 8756-3320.
PUB. COUNTRY: United States
Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 198906
ENTRY DATE: Entered STN: 19900306

Last Updated on STN: 19900306
Entered Medline: 19890609

AB This study was of a series of the evaluation of Hachimi-Jio-Gan (Rehmannia Eight Formula, pa-wei-ti-huang-wan or Bawei dihuang wan) to the various cataracts. In this study, the drug was evaluated for its therapeutic efficacy to mouse hereditary cataract from the delay effect of cataract appearance age and the suppression rates of variation of some biochemical parameters. The dose of 200 mg of Hachimi-Jio-Gan/day/100 g of mouse body weight significantly delayed the cataract appearance age by 4 days as compared to that of non-treated group. We estimated that the delay effect of 4 days in mouse may be corresponded to 13.9 years, when it was converted into the case of human. This drug also suppressed variation of sodium and potassium ions level in the lens with cataractogenesis. Furthermore, the drug dramatically reactivated the sodium-potassium ATPase activity damaged with the cataract formation, and also had a slight action of reducing agent. From these facts, we presumed that the drug may have a prophylactic efficacy to the cataract caused by the inhibition of sodium-potassium ATPase activity and also the oxidation of lens protein.

L164 ANSWER 11 OF 68 MEDLINE
ACCESSION NUMBER: 81196829 MEDLINE
DOCUMENT NUMBER: 81196829 PubMed ID: 7231193
TITLE: Ascorbic acid metabolism in diabetes mellitus.
AUTHOR: Som S; Basu S; Mukherjee D; Deb S; Choudhury P R; Mukherjee S; Chatterjee S N; Chatterjee I B
SOURCE: METABOLISM: CLINICAL AND EXPERIMENTAL, (1981 Jun) 30 (6) 572-7.
Journal code: MUM; 0375267. ISSN: 0026-0495.
PUB. COUNTRY: United States
Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 198107
ENTRY DATE: Entered STN: 19900316
Last Updated on STN: 19900316
Entered Medline: 19810720

AB In contrast to normal subjects diabetic patients and very low plasma ascorbic acid and significantly high (p less than 0.001) dehydroascorbic acid irrespective of age, sex, duration of the disease, type of treatment, and glycemic control. However, there was no significant difference between the mean leukocyte ascorbate concentrations of the two populations. The in vitro rates of dehydroascorbate reduction in the hemolysate and the erythrocyte reduced glutathione levels and the glucose-6-phosphate dehydrogenase activities, which regulate the dehydroascorbate reduction, were similar in normal and diabetic subjects. The turnover of ascorbic acid was higher in the diabetics than that in the normal volunteers. Experiments with diabetic rats indicated that the increased turnover of ascorbic acid was probably due to increased oxidation of ascorbate to dehydroascorbate in tissue mitochondria. Ascorbic acid supplementation at a dose of 500 mg per day for a brief period of 15 days resulted in an increase in the plasma ascorbate level temporarily, but it did not lower the blood glucose level of the diabetic patients.

L164 ANSWER 12 OF 68 MEDLINE
ACCESSION NUMBER: 78118633 MEDLINE
DOCUMENT NUMBER: 78118633 PubMed ID: 625810
TITLE: [Effect of ascorbic acid and oat polyphenols on respiration and oxidative phosphorylation in liver mitochondria in alloxan diabetic rats].
Vliianie askorbinovoi kisloty i polifenolov ovsa na dykhanie i okislitel'noe fosforilirovanie v mitokhondriiakh tkani pecheni pri alloksanovom diabete u krys.
AUTHOR: Shamrai E F; Stroevaia L N; Beletskaia T A

SOURCE: UKRAINSKII BIOKHIMICHESKII ZHURNAL, (1978 Jan-Feb) 50 (1) 50-2.
Journal code: WMJ; 7804246. ISSN: 0201-8470.
PUB. COUNTRY: USSR
Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: Russian
FILE SEGMENT: Priority Journals
ENTRY MONTH: 197804
ENTRY DATE: Entered STN: 19900314
Last Updated on STN: 19900314
Entered Medline: 19780417

AB 30 mg of ascorbic acid and 80 mg of dry oats extracts were administered to rats with alloxan diabetes during a day per 1 kg of live weight. Administration of these preparations during 6, 12 and 24 days prevents the uncoupling action of respiration and oxidative phosphorylation, that was observed in the rats with alloxan diabetes which were not given ascorbic acid and oats polyphenols. The P/O coefficient on the alloxan diabetes rats on the 6, 12 and 24 days was 1.32 +/- 0.027; 1.26 +/- 0.013; 1.22 +/- 0.18, respectively; in the rats which were given ascorbic acid and oats polyphenols to P/O coefficient was 1.85 +/- 0,026, 1.80 +/- 0.024 and 1.75 +/- 0.028, respectively.

L164 ANSWER 13 OF 68 MEDLINE
ACCESSION NUMBER: 74056004 MEDLINE
DOCUMENT NUMBER: 74056004 PubMed ID: 4800930
TITLE: Studies on the biochemical properties of human thyroid gland mitochondria.
AUTHOR: Inatsuki B; Hiraga M; Anan F K
SOURCE: JOURNAL OF BIOCHEMISTRY, (1973 Oct) 74 (4) 837-48.
Journal code: HIF; 0376600. ISSN: 0021-924X.
PUB. COUNTRY: Japan
Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 197402
ENTRY DATE: Entered STN: 19900310
Last Updated on STN: 19900310
Entered Medline: 19740213

L164 ANSWER 14 OF 68 CAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 2001:545461 CAPLUS
DOCUMENT NUMBER: 135:127168
TITLE: Reduced form of coenzyme Q in highly bioavailable stable dosage forms
INVENTOR(S): Chopra, Raj K.
PATENT ASSIGNEE(S): USA
SOURCE: PCT Int. Appl., 50 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001052822	A1	20010726	WO 2001-US1997	20010118

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY,

DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
PRIORITY APPLN. INFO.: US 2000-488332 A 20000120
US 2000-637559 A 20000811
OTHER SOURCE(S): MARPAT 135:127168
AB The present invention relates to a reduced form of coenzyme Q also known as ubiquinol in a pharmaceutical or cosmetic dosage form, preferably an oral dosage form such as a gelatin capsule. Compns. according to the present invention show high bioavailability of the reduced form of Coenzyme Q. The present invention relates to storage stable compns. comprising effective amts. of ubiquinol in combination with an amt. of a reducing agent effective to maintain ubiquinol in its reduced state when formulated as in, e.g., capsules, tablets and other orally administrable form. A capsule formulation contained vitamin E acetate 6, hydroxylated lecithin 4, phosphatidylcholine 32, medium-chain triglyceride 20, Gelucire 30, coenzyme Q10 4, and ascorbyl palmitate 4%.
IT **50-81-7**, vitamin C, biological studies **50-81-7D**, vitamin C, esters
RL: **THU (Therapeutic use)**; BIOL (Biological study); USES (Uses)
(bioavailable stable dosage forms contg. ubiquinol)
REFERENCE COUNT: 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L164 ANSWER 15 OF 68 CAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 2001:247174 CAPLUS
DOCUMENT NUMBER: 134:271267
TITLE: A pharmaceutical composition for stabilising atherosclerotic plaques
INVENTOR(S): Kenton, Kalevi John; Carey, Adam Henry; Carey, Beverly Jane; Haynes, Antony John
PATENT ASSIGNEE(S): Avansis Limited, UK
SOURCE: PCT Int. Appl., 26 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001022958	A2	20010405	WO 2000-GB3665	20000925
WO 2001022958	A3	20011115		

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
PRIORITY APPLN. INFO.: GB 1999-22751 A 19990927
AB The invention relates to a pharmaceutical compn. that can be used to treat or prevent disorders of the vascular system. The compn. comprises lycopene in combination with a flavonoid, an amino acid, magnesium, ascorbate and vitamin E. Thus, a sachet formulation contained Mg ascorbate 3 and lysine 3 g, vitamin E (emulsified) 300, lycopene 5, and bioflavonoids 600 mg.
IT **50-81-7D**, Ascorbic acid, esters or **salts**
RL: BAC (Biological activity or effector, except adverse); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(pharmaceutical compn. for stabilizing atherosclerotic plaques)

L164 ANSWER 16 OF 68 CAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 2001:468202 CAPLUS
DOCUMENT NUMBER: 135:56095
TITLE: Therapeutic uses of oxidized glutathione as enhancer of endogenous production of cytokine and hemopoietic factor
INVENTOR(S): Kozhemyakin, Leonid A.; Balazovski, Mark B.
PATENT ASSIGNEE(S): Novelos Therapeutics, Inc., USA
SOURCE: U.S., 51 pp., Cont.-in-part of U.S. Ser. No. 733,886.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 3
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 6251857	B1	20010626	US 1996-766557	19961211
RU 2089179	C1	19970910	RU 1995-120403	19951214
US 6165979	A	20001226	US 1996-733886	19961018

PRIORITY APPLN. INFO.: RU 1995-120403 A 19951214
US 1996-733886 A2 19961018

AB A method of stimulating endogenous prodn. of cytokines and hemopoietic factors by introducing to a mammalian body an effective amt. of oxidized glutathione (GSSG), its therapeutically beneficial salts and/or derivs., and mixt. thereof for a period of time to stimulate said endogenous prodn. to obtain a therapeutic effect. Stimulation of the endogenous cytokines and hemopoietic factor prodn. is considered beneficial for treatment of neoplastic, infectious, hematol., and immunol. diseases. Oxidized glutathione with or without extenders, such as a peroxide, ascorbate, DMSO, inosine, cystamine, choline chloride, etc., are used in drug forms. For example, GSSG, as well as its drug forms contg. 0.003% H2O2, 0.1% inosine, or 0.1% cystamine showed dual functional properties which selectively induced proliferation slow-down and apoptosis-like death of tumor cells while accelerated proliferation of normal cells (lymphocytes) without any signs of their apoptosis. The application of GSSG in combination with inosine produced the most prominent effect of GSSG in respect to normal cells. Also, a parenteral administration of GSSG (5 mg/mL) to an AIDS patient with cryptococcal meningitis for 3 mo reduced the no. of viable Cryptococcus neoformans, reduced the signs of anemia, increased the no. of lymphocytes, and induced the sizable elevation of the cytokine blood levels, with interleukin (IL)-2, IL-6, and interferon-.gamma. playing the key role in the host defense against the fungi.

IT **50-81-7**, L-Ascorbic acid, biological studies
RL: MOA (Modifier or additive use); **THU (Therapeutic use)**; BIOL (Biological study); USES (Uses)
(glutathione disulfide and derivs. induction of endogenous cytokines and hemopoietins for therapy)

REFERENCE COUNT: 42 THERE ARE 42 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L164 ANSWER 17 OF 68 CAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 2001:179052 CAPLUS
DOCUMENT NUMBER: 135:132094
TITLE: Effect of iron and ascorbate on cyclosporine-induced oxidative damage of kidney **mitochondria** and microsomes
AUTHOR(S): Lee, Suk Ha; Yoon, Young Chul; Jang, Yoon Young; Song, Jin Ho; Han, Eun Sook; Lee, Chung Soo
CORPORATE SOURCE: Department of Pharmacology, College of Medicine, Chung-Ang University, Seoul, 156-756, S. Korea
SOURCE: Pharmacol. Res. (2001), 43(2), 161-171

CODEN: PHMREP; ISSN: 1043-6618
PUBLISHER: Academic Press
DOCUMENT TYPE: Journal
LANGUAGE: English
AB The stimulatory effect of iron and ascorbate on the damaging action of cyclosporine in kidney mitochondria, microsomes, and epithelial cells was examd. Cyclosporine induced malondialdehyde formation and hydrogen peroxide prodn. in mitochondria and attenuated the activity of MnSOD and glutathione peroxidase. The damaging effect of cyclosporine (50 .mu.M) plus Fe2+ (20 .mu.M) on mitochondrial and microsomal lipids and proteins as well as mitochondrial thiols was greater than the summation of the oxidizing action of cyclosporine alone and Fe2+ alone. As for tissue components, iron enhanced cyclosporine-induced viability loss in kidney epithelial cells. Fe2+, EDTA, and H2O2-induced 2-.alpha. deoxyribose degrdn. was attenuated by 10 mM DMSO and 200 .mu.M DTPA but not affected by 200 .mu.M cyclosporine. The addn. of Fe2+ caused a change in the absorbance spectrum of cyclosporine in the wavelength range 230-350 nm. The simultaneous addn. of cyclosporine (50 .mu.M) and ascorbate (100 .mu.M) showed the enhanced peroxidative effect on mitochondrial and microsomal lipids, which was inhibited by DTPA and EDTA (1 mM). Similar to iron, ascorbate enhanced cyclosporine-induced cell viability loss. The results show that iron and ascorbate promote the damaging action of cyclosporine in kidney cortex mitochondria and microsomes and in kidney epithelial cells, which may contribute to the enhancement of cyclosporine-induced **nephrotoxicity**. (c) 2001 The Italian Pharmacological Society.
IT **50-81-7**, L-Ascorbic acid, biological studies
RL: ADV (Adverse effect, including toxicity); **BAC (Biological activity or effector, except adverse)**; BIOL (Biological study)
(effect of iron and ascorbate on cyclosporine-induced oxidative damage of kidney **mitochondria** and microsomes)
REFERENCE COUNT: 53 THERE ARE 53 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L164 ANSWER 18 OF 68 CAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 2000:706980 CAPLUS
DOCUMENT NUMBER: 133:271715
TITLE: Tocotrienol-based antioxidant formulations for therapeutic uses and as food additives
INVENTOR(S): Schneider, F. Howard; Lane, Ronald H.; Avila, Timothy
PATENT ASSIGNEE(S): Lipogenics, Inc., USA
SOURCE: PCT Int. Appl., 26 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2000057876	A1	20001005	WO 2000-US7733	20000324

W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

PRIORITY APPLN. INFO.: US 1999-126255 P 19990326
AB This invention relates to novel antioxidant formulations and methods for using them. The antioxidant formulations comprise a combination of a free

radical scavenger (FRS), a radical scavenger recycler (RSR) and optionally, a radical formation inhibitor (RFI). The formulations of this invention may be used in pharmaceutical compns., foodstuffs, food additives and dietary supplements. In addn., this invention relates to the use of the antioxidant formulations to inhibit oxidative damage and to treat and prevent disorders assocd. with oxidative damage caused by free radicals. A formulation contained a tocotrienol mixt. 5.0 g, ascorbic acid 3.3 g, palmityl ascorbate 1.0 g, .alpha.-lipoic acid 3.3 g, and Na pyruvate 6.7 g. This formulation was a superior radical scavenger than either dl-.alpha.-tocopherol or a tocopherol mixt. alone.

IT **50-81-7D**, Ascorbic acid, derivs. and **salts**
RL: BAC (Biological activity or effector, except adverse); FFD (Food or feed use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(tocotrienol-based antioxidant formulations for therapeutic uses and as food additives)

REFERENCE COUNT: 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L164 ANSWER 19 OF 68 CAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 2000:534990 CAPLUS
DOCUMENT NUMBER: 133:134720
TITLE: Antioxidant compositions and methods for companion animals
INVENTOR(S): Harper, E. Jean
PATENT ASSIGNEE(S): Mars UK Limited, UK
SOURCE: PCT Int. Appl., 66 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2000044375	A1	20000803	WO 2000-GB270	20000131
W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
BR 2000007862	A	20011023	BR 2000-7862	20000131
EP 1146870	A1	20011024	EP 2000-901737	20000131
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				

PRIORITY APPLN. INFO.: GB 1999-2051 A 19990129
GB 1999-28549 A 19991202
WO 2000-GB270 W 20000131

AB The present invention utilizes an antioxidant cocktail contg. esp. vitamins E and C to overcome the problem of oxidative stress in a cat or dog. Such cocktail can be used to prevent or treat a disorder which has a component of oxidate stress or to maintain, optimize or boost immunol. response.

IT **50-81-7**, Vitamin C, biological studies
RL: FFD (Food or feed use); **THU (Therapeutic use)**; BIOL (Biological study); USES (Uses)
(antioxidant compns. contg. vitamins C and E for cats and dogs)

REFERENCE COUNT: 11 THERE ARE 11 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L164 ANSWER 20 OF 68 CAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 2000:420945 CAPLUS
DOCUMENT NUMBER: 133:63951
TITLE: Viscoelastic compositions containing antioxidants
INVENTOR(S): Shah, Mandar V.; Doshi, Uday; Markwardt, Kerry L.
PATENT ASSIGNEE(S): Alcon Laboratories, Inc., USA
SOURCE: PCT Int. Appl., 34 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2000035432	A2	20000622	WO 1999-US29442	19991210
WO 2000035432	A3	20001116		

W: AU, BR, CA, JP, US
RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE

PRIORITY APPLN. INFO.: US 1998-112663 P 19981217

AB Compns. and methods for treating mammalian tissues are disclosed. The compns. have improved stability, and are viscoelastic compns. comprising physiol. antioxidants, bifunctional compds. having an anti-inflammatory and anti-oxidant moiety covalently linked by an amide or ester bond, in a viscoelastic vehicle. The methods are particularly useful in the prevention or treatment of inflammatory and proliferative events incident to ocular surgery. Thys, a viscoelastic compn. contained (S)-6-methoxy-.alpha.-methylnaphthaleneacetic acid (R)-2-(3,4-dihydro-6-hydroxy-2,5,7,8-tetramethyl-2H-1-benzopyran-2-yl)ethyl ester 0.00146, Cremophor EL 1.0, sodium hyaluronate 1.0, dibasic sodium phosphate 0.056, monobasic sodium phosphate monohydrate 0.004, NaCl 0.84, sodium ascorbate 0.025, HCl/NaOH (pH adjustment) and water qs.

IT **50-81-7D**, Vitamin C, **salts**
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(viscoelastic compns. contg. antioxidants)

L164 ANSWER 21 OF 68 CAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 2000:219062 CAPLUS
DOCUMENT NUMBER: 132:256003
TITLE: Water-soluble compositions of bioactive lipophilic compounds
INVENTOR(S): Borowy-Borowski, Henryk; Sikorska-Walker, Marianna; Walker, P. Roy
PATENT ASSIGNEE(S): National Research Council of Canada, Can.
SOURCE: U.S., 19 pp.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 6045826	A	20000404	US 1999-285244	19990402
WO 2000061189	A2	20001019	WO 2000-CA76	20000203
WO 2000061189	A3	20010111		

W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

EP 1159006	A2	20011205	EP 2000-901445	20000203	
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO					
BR 2000009532	A	20011226	BR 2000-9532	20000203	
US 6191172	B1	20010220	US 2000-511239	20000223	
FI 2001001914	A	20011119	FI 2001-1914	20010928	

PRIORITY APPLN. INFO.: US 1999-285244 A 19990402
WO 2000-CA76 W 20000203

OTHER SOURCE(S): MARPAT 132:256003

AB Water-sol. compns. comprising a lipophilic compd. and a solubilizing agent of the general formula: {X-OOC-[(CH2)n-COO]m}p-Y wherein: X is a residue of a hydrophobic moiety, Y is a residue of a hydrophilic moiety, p is 1 or 2, m is 0 or 1, and n is an integer greater than or equal to 0 are disclosed. The lipophilic compd. is preferably selected from the group consisting of water-insol. ubiquinones, ubiquinols, vitamins, provitamins, polyene macrolide antibiotics, and mixts. thereof. The hydrophobic moiety is preferably a sterol or a tocopherol and the hydrophilic moiety is preferably a polyalkylene glycol. In preferred embodiments, the sterol is cholesterol or sitosterol, the tocopherol is a-(+)-tocopherol, the polyalkylene glycol is a polyethylene glycol or its Me monoether having an av. mol. wt. between 600 and 1000, p is equal to 1 or 2, m is equal to 0 or 1 and n is an integer between 2 and 18. A water sol. compn. contained vitamin E 0.10, polyoxyethyanyl-.alpha.-tocopheryl sebacate (prepn. given) 0.60, vitamin E 0.22, polyoxyetahanyl-.alpha.-tocopheryl sebacate 1.00 g, THF 2.50, and water 35.00 mL.

IT **50-81-7**, L-Ascorbic acid, biological studies
RL: **THU (Therapeutic use)**; BIOL (Biological study); USES (Uses)
(water-sol. compns. of bioactive lipophilic compds.)

REFERENCE COUNT: 12 THERE ARE 12 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L164 ANSWER 22 OF 68 CAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 2000:546727 CAPLUS
DOCUMENT NUMBER: 133:292070
TITLE: Ascorbic Acid Promotes Recovery of **Cellular Functions** Following Toxicant-Induced Injury
AUTHOR(S): Nowak, Grazyna; Carter, Charleata A.; Schnellmann, Rick G.
CORPORATE SOURCE: Department of Pharmaceutical Sciences, University of Arkansas for Medical Sciences, Little Rock, AR, 72205-7199, USA
SOURCE: Toxicol. Appl. Pharmacol. (2000), 167(1), 37-45
CODEN: TXAPA9; ISSN: 0041-008X
PUBLISHER: Academic Press
DOCUMENT TYPE: Journal
LANGUAGE: English

AB The authors have shown that renal proximal tubular cells (RPTC) recover cellular functions following sublethal injury induced by the oxidant tert-butylhydroperoxide but not by the **nephrotoxic** cysteine conjugate dichlorovinyl-L-cysteine (DCVC). This study investigated whether L-ascorbic acid phosphate (AscP) promotes the recovery of RPTC functions following DCVC-induced injury. DCVC exposure (200 .mu.M; 100 min) resulted in 60% RPTC death and loss from the monolayer at 24 h independent of physiol. (50 .mu.M) or pharmacol. (500 .mu.M) AscP concns. Likewise, the DCVC-induced decrease in mitochondrial function (54%), active Na+ transport (66%), and Na+-K+-ATPase activity (77%) was independent of the AscP concn. Anal. of Na+-K+-ATPase protein expression and distribution in the plasma membrane using immunocytochem. and confocal laser scanning microscopy revealed the loss of Na+-K+-ATPase protein from the basolateral membrane of RPTC treated with DCVC. DCVC-injured RPTC

cultured in the presence of 50 .mu.M AscP did not proliferate nor recover their physiol. functions over time. In contrast, RPTC cultured in the presence of 500 .mu.M AscP proliferated, recovered all examd. physiol. functions, and the basolateral membrane expression of Na+-K+-ATPase by day 4 following DCVC injury. These results demonstrate that pharmacol. concns. of AscP do not prevent toxicant-induced cell injury and death but promote complete recovery of mitochondrial function, active Na+ transport, and proliferation following toxicant-induced injury. (c) 2000 Academic Press.

IT **125913-31-7, L-Ascorbic acid phosphate**
RL: **BAC (Biological activity or effector, except adverse)**; BIOL (Biological study)
(**ascorbic acid** promotes recovery of **cellular functions** after toxicant-induced injury)

REFERENCE COUNT: 43 THERE ARE 43 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L164 ANSWER 23 OF 68 CAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 2000:14978 CAPLUS
DOCUMENT NUMBER: 132:277201
TITLE: Biological effects of electric shock and heat denaturation and oxidation of molecules, membranes, and **cellular functions**
AUTHOR(S): Tsong, Tian Yow; Su, Zheng-Ding
CORPORATE SOURCE: Department of Biochemistry, Molecular Biology, and Biophysics, University of Minnesota College of Biological Sciences, St. Paul, MN, 55108, USA
SOURCE: Ann. N. Y. Acad. Sci. (1999), 888(Occupational Electrical Injury: An International Symposium, 1998), 211-232
CODEN: ANYAA9; ISSN: 0077-8923
PUBLISHER: New York Academy of Sciences
DOCUMENT TYPE: Journal; General Review
LANGUAGE: English

AB A review, with 31 refs. Direct exposure of cells in suspension to intense elec. pulses is known to produce damages to cell membranes and supramol. organizations of cells, and denaturation of macromols., much like injuries and tears seen in elec. trauma patients. Thus, the system has been used as a lab. model for investigating the biochem. basis of elec. injury. An intense elec. pulse can produce two major effects on cells-one caused by the field, or the elec. potential, and the other by current, or the elec. energy. The field-induced transmembrane potential can produce electroconformational changes of ion channels and ion pumps and, when the potential exceeds the dielec. strength of the cell membrane (approx. 500 mV for a pulse width of a few ms), electroconformational damages and electroporations of membrane proteins and lipid bilayers. These events lead to passage of elec. current through the membrane-porated cells and to heating of cell membranes and cytoplasmic contents. The subsequent denaturation of cell membranes and cytoplasmic macromols. brings about many complex biochem. reactions, including oxidn. of proteins and lipids. The combined effects may cripple the cells beyond repair. This communication will focus on the thermal effects of elec. shock. After a brief review of the current state of knowledge on thermal denaturation of sol. enzymes and muscle proteins, this paper will describe expts. on the thermal denaturation of cellular components and functions, such as nucleosomes, and the electron transport chain and ATP synthetic enzymes of the mitochondrial inner membranes. Data will show that lipid peroxidn. and the subsequent loss of the energy-transducing ability of the cells may occur even at moderate temps. between 40.degree.C and 45.degree.C. However, lipid peroxidn. may be prevented with reducing reagents such as mercaptoethanol, dithiothreitol, and ascorbic acid. Reactivation of denatured cellular proteins and functions may also be possible and a strategy for doing so is discussed.

IT **50-81-7**, Ascorbic acid, biological studies
RL: **BAC (Biological activity or effector, except adverse)**; BIOL (Biological study)
(thermal effects of elec. shock and damages to cell membranes and supramol. organizations of cells, and denaturation of macromols. in relation to injuries and tears seen in elec. trauma human patients)
REFERENCE COUNT: 31 THERE ARE 31 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L164 ANSWER 24 OF 68 CAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1998:682101 CAPLUS
DOCUMENT NUMBER: 129:302076
TITLE: Nutritional composition for improvements in cell energetics
INVENTOR(S): Sole, Michael J.; Jeejeebhoy, Khursheed N.
PATENT ASSIGNEE(S): Can.
SOURCE: PCT Int. Appl., 34 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 3
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9843617	A2	19981008	WO 1998-CA286	19980325
WO 9843617	A3	19981217		
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, HU, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
US 6080788	A	20000627	US 1998-2765	19980106
AU 9867153	A1	19981022	AU 1998-67153	19980325
AU 739353	B2	20011011		
EP 969744	A2	20000112	EP 1998-912176	19980325
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
BR 9808088	A	20000308	BR 1998-8088	19980325

PRIORITY APPLN. INFO.:
US 1997-826234 A 19970327
US 1998-2765 A 19980106
WO 1998-CA286 W 19980325

AB This invention provides a dietary supplement comprising L-Carnitine (or its functional analogs such as Acetyl-Carnitine or Propionyl-L-Carnitine), Coenzyme Q10 and Taurine useful in the correction of the abnormality in mitochondrial energetics seen in cardiac failure and certain other diseases. In one preferred embodiment of the invention, a high protein, high calorie nutritional feeding supplement comprising the three aforementioned nutrients together with one or more of Cysteine, Creatine, Vitamin E (RRR-d-alpha-tocopherol), Vitamin C (ascorbic acid), Selenium, and Thiamin is provided.
IT **50-81-7**, Vitamin C, biological studies
RL: **BAC (Biological activity or effector, except adverse)**; **THU (Therapeutic use)**; BIOL (Biological study); USES (Uses)
(carnitine-contg. nutritional compn. for improvements in cell energetics, esp. for cardiac failure treatment)

L164 ANSWER 25 OF 68 CAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1999:373898 CAPLUS
DOCUMENT NUMBER: 131:183259

TITLE: Angiogenic effect of lipid hydroperoxide on bovine aortic endothelial cells
AUTHOR(S): Yamada, Yasuyo; Nakanishi-Ueda, Takako; Yasuda, Masako; Armstrong, Donald; Yamamoto, Yorihiro; Yamamoto, Toshinori; Yasuhara, Hajime
CORPORATE SOURCE: Department of Pharmacology, School of Medicine, Showa University, Tokyo, 142-8555, Japan
SOURCE: J. Clin. Biochem. Nutr. (1998), 25(3), 121-130
CODEN: JCBNER; ISSN: 0912-0009
PUBLISHER: Institute of Applied Biochemistry
DOCUMENT TYPE: Journal
LANGUAGE: English
AB To elucidate further the mechanism of lipid hydroperoxide (LHP) induced neovascularization, the authors detd. the effect of linoleic acid hydroperoxide (18:2-OOH) on bovine aortic endothelial cells (BAEC) in terms of cell proliferation, migration, and tube formation. The influence of some antioxidants on these systems were also investigated. The concn. of basic fibroblast growth factor (bFGF) in the culture medium was detd. by an immunoassay. Exposure to 10-7 M 18:2-OOH increased BAEC proliferation, migration, and tube formation by 117, 167, and 181%, resp., as compared with control values. The concn. of bFGF in the culture medium was increased 3-fold by 10-7 M 18:2-OOH exposure for 3 h, compared with that of controls (5.1 vs. 1.7 pg/mg protein). BAEC migration induced by 10-7 M 18:2-OOH was inhibited by 10-7 M bucillamine, which contains two sulfhydryl groups; by 10-7 M troglitazone, which structurally similar to .alpha.-tocopherol; and by 10-7 M EPC-K1, an .alpha.-tocopherol and ascorbic acid conjugate. Antioxidants showed marginal effects on proliferation. The de novo synthesis of bFGF after the 18:2-OOH stimulus for 3 h was reduced from 5.1 pg/mg protein to 2.0 pg/mg protein by treatment with bucillamine. Apparently, 18:2-OOH induced BAEC growth is partly related to bFGF release or synthesis.
IT **50-81-7**, L-Ascorbic acid, biological studies
RL: **BAC (Biological activity or effector, except adverse)**; BIOL (Biological study)
(angiogenic effect of lipid hydroperoxide on bovine aortic endothelial cells)
REFERENCE COUNT: 28 THERE ARE 28 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L164 ANSWER 26 OF 68 CAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1997:511962 CAPLUS
DOCUMENT NUMBER: 127:117382
TITLE: Oxidized glutathione, salts, and derivatives as enhancers of endogenous production of cytokines and hemopoietic factors, and methods of therapeutic use
INVENTOR(S): Balazovsky, Mark Borisovich; Kozhemyakin, Leonid Andreevich
PATENT ASSIGNEE(S): Balazovsky, Mark Borisovich, Russia; Kozhemyakin, Leonid Andreevich
SOURCE: PCT Int. Appl., 125 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 3
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9721444	A1	19970619	WO 1996-RU340	19961210

W: AL, AM, AT, AU, AZ, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IS, JP, KE, KG, KP, KR, KZ, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, TJ, TM, TR, TT, UA, UG, US, UZ, VN, AM, AZ, BY, KG,

KZ, MD, RU, TJ, TM
RW: KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG

RU 2089179	C1	19970910	RU 1995-120403	19951214
WO 9721443	A1	19970619	WO 1996-RU226	19960808

W: AL, AM, AT, AU, AZ, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IS, JP, KE, KG, KP, KR, KZ, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, SD, SE, SG, SI, SK, TJ, TM, TR, TT, UA, UG, US, UZ, VN, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG

AU 9711130	A1	19970703	AU 1997-11130	19961210
EP 869809	A1	19981014	EP 1996-941915	19961210

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI

RU 2153351	C2	20000727	RU 1998-108088	19961210
JP 2000515111	T2	20001114	JP 1997-521965	19961210

PRIORITY APPLN. INFO.:

RU 1995-120403	A	19951214
WO 1996-RU226	A	19960808
WO 1996-RU340	W	19961210

AB A method for stimulating endogenous prodn. of cytokines and hemopoietic factors comprises topical or parenteral administration of an effective amt. of oxidized glutathione, and/or a pharmaceutically acceptable salt and/or deriv. thereof, for a period sufficient to stimulate the endogenous prodn. to obtain a therapeutic effect. The oxidized glutathione and/or pharmaceutically acceptable salt and/or deriv. is introduced along with an extender of their half life. The compds. of the invention may be used in the treatment of neoplasms, immune diseases, etc.

IT **50-81-7**, L-Ascorbic acid
RL: **BAC (Biological activity or effector, except adverse)**; **THU (Therapeutic use)**; BIOL (Biological study); USES (Uses)
(oxidized glutathione, salts, and derivs. as enhancers of endogenous prodn. of cytokines and hemopoietic factors, therapeutic use, and use with enhancers/modulators and half-life extenders)

L164 ANSWER 27 OF 68 CAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1997:801502 CAPLUS
DOCUMENT NUMBER: 128:87319
TITLE: Short-term impairment of energy production in isolated rat liver **mitochondria** by hypoxia/reoxygenation: involvement of oxidative protein modification
AUTHOR(S): Schild, Lorenz; Reinheckel, Thomas; Wiswedel, Ingrid; Augustin, Wolfgang
CORPORATE SOURCE: Medical Faculty, Department of Pathobiochemistry, Otto-von-Guericke-University, Magdeburg, 39120, Germany
SOURCE: Biochem. J. (1997), 328(1), 205-210
CODEN: BIJOAK; ISSN: 0264-6021
PUBLISHER: Portland Press Ltd.
DOCUMENT TYPE: Journal
LANGUAGE: English

AB The aim of the present study was to elucidate the role of mitochondria in liver impairment after ischemia/reperfusion. It is commonly assumed that mitochondria are in part responsible for tissue damage by impaired oxidative phosphorylation as a consequence of the attack of radicals generated within the mitochondria. The principal support for this hypothesis was found by exposing isolated mitochondria to temporary hypoxia in combination with alterations of substrate supply. Rat liver mitochondria treated in this way responded with impaired ADP-stimulated

respiration after reoxygenation, which decreased with time of hypoxia and reoxygenation. The decline of the activity of the NADH-cytochrome c-oxidoreductase complex found under these conditions is likely to cause the drop in active respiration. No changes in the content of respiratory chain complexes, detd. by Blue Native PAGE, could be demonstrated. However, oxidative modifications of mitochondrial proteins, indicated by carbonyl formation, were found. Likewise, products of lipid peroxidn., such as lipid peroxides and malondialdehyde, were formed. Mitochondria were still able to build up a transmembrane potential and did not show drastic changes in membrane cond. after hypoxia/reoxygenation stress. The presence of water-sol. antioxidants exhibited a beneficial effect, diminishing the decline of active respiration after 5 min of hypoxia and 10 min of reoxygenation. These observations strongly suggest that mitochondria play a pathogenic role in ischemia/reperfusion injury, which is at least in part mediated by an oxygen-derived free-radical-linked mechanism.

IT **50-81-7**, Ascorbic acid, biological studies
RL: **BAC (Biological activity or effector, except adverse)**; BIOL (Biological study)
(antioxidant; short-term impairment of energy prodn. in isolated rat liver **mitochondria** by hypoxia/reoxygenation and involvement of oxidative protein modification in relation to ischemia/reperfusion injury and)

L164 ANSWER 28 OF 68 CAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1997:439289 CAPLUS
DOCUMENT NUMBER: 127:131510
TITLE: Renal cell regeneration following oxidant exposure: inhibition by TGF-.beta.1 and stimulation by ascorbic acid
AUTHOR(S): Nowak, Grazyna; Schnellmann, Rick G.
CORPORATE SOURCE: Department of Pharmacology and Toxicology, University of Arkansas for Medical Sciences, Little Rock, AR, 72205-7199, USA
SOURCE: Toxicol. Appl. Pharmacol. (1997), 145(1), 175-183
CODEN: TXAPA9; ISSN: 0041-008X
PUBLISHER: Academic
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Renal proximal tubular cell (RPTC) monolayers exposed to the model oxidant tert-butylhydroperoxide (TBHP; 0.8 mM) for 1.5 h were 33 and 31% confluent after 1 and 4 days, resp. Control monolayers remained 100% confluent throughout the expt. Exogenous TGF-.beta.1 promoted monolayer deterioration by potentiating cellular death and suppressed EGF-stimulated regeneration of the RPTC monolayer. Net TGF-.beta.1 prodn. in injured RPTC increased 1.7- and 3.2-fold on Days 1 and 2, resp., and returned to control levels 4 days following TBHP treatment. An anti-TGF-.beta. antibody increased monolayer confluence to 50% and DNA content 1.3-fold 4 days after TBHP exposure. L-Ascorbic acid 2-phosphate (AscP) present only during the recovery period increased monolayer confluence to 67% but had no effect on RPTC proliferation, suggesting that AscP promoted monolayer regeneration by cellular migration/spreading. AscP present continuously had no effect on the extent of TBHP-induced injury but promoted regeneration of RPTC with increased monolayer confluence (1.8-fold) and DNA content (1.8-fold) and decreased cellular lysis by 52% 4 days following TBHP exposure. The results demonstrate that TBHP-induced injury increases net TGF-.beta.1 prodn. in RPTC and that autocrine TGF-.beta.1 inhibits regeneration of the monolayer by potentiating cellular injury and monolayer deterioration. The data also show that AscP is not cytoprotective during TBHP exposure but promotes RPTC regeneration by stimulating proliferation and migration/spreading and decreasing cellular death during the recovery period.

IT **50-81-7**, Ascorbic acid, biological studies **23313-12-4**,

L-**Ascorbic acid 2-phosphate**
RL: **BAC (Biological activity or effector, except adverse)**; BIOL (Biological study)
(TGF-.beta.1 and ascorbic acid effect on renal cell regeneration following oxidant exposure)

L164 ANSWER 29 OF 68 CAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1996:494349 CAPLUS
DOCUMENT NUMBER: 125:150779
TITLE: Anti-irritant skin formulations containing aluminum or tin cations
INVENTOR(S): Hahn, Gary Scott; Thueson, David Orel
PATENT ASSIGNEE(S): Cosmederm Technologies, USA
SOURCE: PCT Int. Appl., 49 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9619183	A1	19960627	WO 1995-US16765	19951221
W: AM, AT, AU, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IS, JP, KE, KG, KP, KR, KZ, LK, LR, LT, LU, LV, MD, MG, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, TJ, TM, TT				
RW: KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
CA 2208078	AA	19960627	CA 1995-2208078	19951221
AU 9645285	A1	19960710	AU 1996-45285	19951221
EP 801554	A1	19971022	EP 1995-943956	19951221
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE				
BR 9510478	A	19981215	BR 1995-10478	19951221

PRIORITY APPLN. INFO.: US 1994-362058 19941221
WO 1995-US16765 19951221

AB Cosmetic and pharmaceutical compns. for inhibiting skin irritation attributable to chem. irritants or environment conditions, contain an anti-irritant amt. of aq.-sol. trivalent aluminum cation or divalent tin cation. A soln. of 250 mM stannous chloride decreased the skin irritation caused by application of 7.5% lactic acid in 10% ethanol by 50%.

IT **50-81-7D**, Ascorbic acid, aluminum and tin **salts**
RL: BUU (Biological use, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(anti-irritant skin formulations contg. aluminum or tin cations)

L164 ANSWER 30 OF 68 CAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1996:494350 CAPLUS
DOCUMENT NUMBER: 125:150780
TITLE: Anti-irritant skin formulations containing magnesium, manganese, or lanthanide cations
INVENTOR(S): Hahn, Gary Scott; Thueson, David Orel
PATENT ASSIGNEE(S): Cosmederm Technologies, USA
SOURCE: PCT Int. Appl., 52 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE

WO 9619182 A1 19960627 WO 1995-US16763 19951221
W: AM, AT, AU, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IS, JP, KE, KG, KP, KR, KZ, LK, LR, LT, LU, LV, MD, MG, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, TJ, TM, TT
RW: KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG
CA 2208500 AA 19960627 CA 1995-2208500 19951221
AU 9646064 A1 19960710 AU 1996-46064 19951221
EP 799018 A1 19971008 EP 1995-944200 19951221
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE
PRIORITY APPLN. INFO.: US 1994-362097 19941221
WO 1995-US16763 19951221

AB Cosmetic and pharmaceutical compns. for inhibiting skin irritation attributable to chem. irritants or environment conditions, contain an anti-irritant amt. of aq.-sol. divalent magnesium cation or divalent manganese cation, or trivalent lanthanide cations of at. nos. 56-71. A soln. of 250 mM manganese acetate decreased the skin irritation caused by application of 7.5% lactic acid in 10% ethanol by 65%.

IT **50-81-7D**, Ascorbic acid, magnesium and manganese and lanthanide **salts**
RL: BUU (Biological use, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(anti-irritant skin formulations contg. magnesium, manganese, or lanthanide cations)

L164 ANSWER 31 OF 68 CAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1996:494351 CAPLUS
DOCUMENT NUMBER: 125:150781
TITLE: Anti-irritant skin formulations containing potassium or lithium cations
INVENTOR(S): Hahn, Gary Scott; Thueson, David Orel
PATENT ASSIGNEE(S): Cosmederm Technologies, USA
SOURCE: PCT Int. Appl., 53 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9619181	A1	19960627	WO 1995-US16751	19951221
W: AM, AT, AU, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IS, JP, KE, KG, KP, KR, KZ, LK, LR, LT, LU, LV, MD, MG, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, TJ, TM, TT				
RW: KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
US 5756107	A	19980526	US 1994-362055	19941221
CA 2208079	AA	19960627	CA 1995-2208079	19951221
AU 9646060	A1	19960710	AU 1996-46060	19951221
EP 796078	A1	19970924	EP 1995-944196	19951221
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, MC, NL, PT, SE				

PRIORITY APPLN. INFO.: US 1994-362055 19941221
WO 1995-US16751 19951221

AB Cosmetic and pharmaceutical compns. for inhibiting skin irritation attributable to chem. irritants or environment conditions, contain an anti-irritant amt. of aq.-sol. potassium or lithium cation. A soln. of 250 mM lithium acetate decreased the skin irritation caused by application of 7.5% lactic acid in 10% ethanol by 70%.

IT **50-81-7D**, Ascorbic acid, potassium or lithium **salts**
RL: BUU (Biological use, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(anti-irritant skin formulations contg. potassium or lithium cations)

L164 ANSWER 32 OF 68 CAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1992:99329 CAPLUS
DOCUMENT NUMBER: 116:99329
TITLE: Reduction of cardiovascular vessel occlusions with ascorbate and lipoprotein (a) binding inhibitors
INVENTOR(S): Rath, Matthias W.; Pauling, Linus C.
PATENT ASSIGNEE(S): Germany
SOURCE: PCT Int. Appl., 38 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9119488	A1	19911226	WO 1991-US3876	19910603
W: AU, CA, JP				
RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LU, NL, SE				
US 5230996	A	19930727	US 1990-556968	19900724
US 5278189	A	19940111	US 1990-557516	19900724
AU 9184163	A1	19920107	AU 1991-84163	19910603
EP 532706	A1	19930324	EP 1991-915232	19910603
EP 532706	B1	19950510		
R: CH, DE, FR, GB, IT, LI				

PRIORITY APPLN. INFO.:
US 1990-533129 19900604
US 1990-556968 19900724
US 1990-557516 19900724
WO 1991-US3876 19910603

AB A method and pharmaceutical compn. are provided for the prevention and treatment of cardiovascular disease, particularly cardiovascular disease in the context of diabetic angiopathy, bypass surgery, organ transplantation, and hemodialysis, by administering ascorbate and substances that inhibit the binding of lipoprotein (a) to blood vessel walls. Vitamin C deficiency in guinea pigs led to an increase in plasma lipoprotein (a), and atherosclerotic lesions were obsd. In other expts., plasma ascorbate levels neg. correlated with the degree of atherosclerotic lesion. Release of lipoprotein (a) from human arterial wall by, e.g., Na ascorbate, tranexamic acid, and a combination thereof was detd.

IT **50-81-7D**, L-Ascorbic acid, **salts**
RL: BIOL (Biological study)
(and lipoprotein (a) binding inhibitor for atherosclerosis prevention in vessel transplants)

L164 ANSWER 33 OF 68 EMBASE COPYRIGHT 2002 ELSEVIER SCI. B.V.
ACCESSION NUMBER: 2001287821 EMBASE
TITLE: [Current diagnosis and treatment: Mitochondrial diseases]. AKTUELLE DIAGNOSTIK & THERAPIE: MITOCHONDRIALE ZYTOPATHIEN.
AUTHOR: Schaefer J.; Reichmann H.
CORPORATE SOURCE: Dr. J. Schaefer, Klin. fur Neurol. (Haus 27), Uniklinikum C.G. Carus der, Technischen Univ. Dresden, Fetscherstrae 74, 01307 Dresden, United Kingdom. schaefer@rcs.urz.tu-dresden.de
SOURCE: Deutsche Medizinische Wochenschrift, (17 Aug 2001) 126/33 (913-917).
Refs: 12
ISSN: 0012-0472 CODEN: DMWOAX
COUNTRY: Germany

DOCUMENT TYPE: Journal; General Review
FILE SEGMENT: 006 Internal Medicine
008 Neurology and Neurosurgery
012 Ophthalmology
029 Clinical Biochemistry
037 Drug Literature Index
LANGUAGE: German

L164 ANSWER 34 OF 68 EMBASE COPYRIGHT 2002 ELSEVIER SCI. B.V.
ACCESSION NUMBER: 2001316774 EMBASE
TITLE: **Antioxidants**: Unlocking their potential.
AUTHOR: Coleman M.D.
CORPORATE SOURCE: M.D. Coleman, Mechanisms of Drug Toxicity Group, Dept. of Pharmaceutical Sciences, Aston University, Aston Triangle, Birmingham B4 7ET, United Kingdom. m.d.coleman@aston.ac.uk
SOURCE: Environmental Toxicology and Pharmacology, (2001) 10/4 (139-140).
ISSN: 1382-6689 CODEN: ETOPFR
PUBLISHER IDENT.: S 1382-6689(01)00076-X
COUNTRY: Netherlands
DOCUMENT TYPE: Journal; Editorial
FILE SEGMENT: 030 Pharmacology
037 Drug Literature Index
LANGUAGE: English

L164 ANSWER 35 OF 68 EMBASE COPYRIGHT 2002 ELSEVIER SCI. B.V.
ACCESSION NUMBER: 2001173364 EMBASE
TITLE: Treatment with **antioxidants** at onset of type 1 diabetes in children: A randomized, double-blind placebo-controlled study.
AUTHOR: Ludvigsson J.; Samuelsson U.; Johansson C.; Stenhammar L.
CORPORATE SOURCE: J. Ludvigsson, Division of Pediatrics, Department of Health and Environment, Linkoping University, S-581 85 Linkoping, Sweden. Johnny.Ludvigsson@lio.se
SOURCE: Diabetes/Metabolism Research and Reviews, (2001) 17/2 (131-136).
Refs: 48
ISSN: 1520-7552 CODEN: DMRRFM
COUNTRY: United Kingdom
DOCUMENT TYPE: Journal; Article
FILE SEGMENT: 003 Endocrinology
007 Pediatrics and Pediatric Surgery
030 Pharmacology
036 Health Policy, Economics and Management
037 Drug Literature Index
038 Adverse Reactions Titles
LANGUAGE: English
SUMMARY LANGUAGE: English
AB Background. In recent years different types of immune interventions have been tried at the onset of type 1 diabetes. Although some have shown effects, none have proven to be sufficiently effective to justify the inherent risks and side effects. Antioxidants have no or minimal side effects. If they can protect the beta cells against free oxygen radicals during the inflammatory process this would be a safe and cheap intervention. To evaluate this hypothesis a combination of various antioxidative agents was employed in a double-blind randomized study. Methods. The study group comprised 46 children aged 1-17 years at diagnosis. They were followed for 3 years: 2 years whilst taking the tablets and 1 year of follow-up. Twenty-four children were randomly allocated to active treatment with high doses of antioxidants and 22 children to placebo tablets. The tablets were the same size and tasted identical. Results. Twenty patients had for more than 1 month an insulin dose<0.5 U/kg in parallel with a normal HbA(1c) value and stable blood

glucose values, but with no difference observed between those with and without active treatment. Nor was any significant difference observed regarding C-peptide values, fasting as well as stimulated. Whilst the antioxidants demonstrated no positive effect, they also had no negative side effects. Conclusion. At diagnosis of type 1 diabetes in children, high doses of antioxidative agents have no effect either on the preservation of beta cell function or on metabolic balance. Copyright .COPYRGT. 2001 John Wiley & Sons, Ltd.

L164 ANSWER 36 OF 68 EMBASE COPYRIGHT 2002 ELSEVIER SCI. B.V.
ACCESSION NUMBER: 2001222383 EMBASE
TITLE: Beneficial effects of .alpha.-lipoic acid and ascorbic acid on endothelium-dependent, nitric oxide-mediated vasodilation in diabetic patients: Relation to parameters of oxidative stress.
AUTHOR: Heitzer T.; Finckh B.; Albers S.; Krohn K.; Kohlschutter A.; Meinertz T.
CORPORATE SOURCE: T. Heitzer, Univ. Klinikum Hamburg-Eppendorf, Klinik/Poliklinik fur Innere Medizin, Abteilung Kardiologie Martinistr.52, 20246 Hamburg, Germany. heitzer@uke.uni-hamburg.de
SOURCE: Free Radical Biology and Medicine, (1 Jul 2001) 31/1 (53-61).
Refs: 42
ISSN: 0891-5849 CODEN: FRBMEH
PUBLISHER IDENT.: S 0891-5849(01)00551-2
COUNTRY: United States
DOCUMENT TYPE: Journal; Article
FILE SEGMENT: 006 Internal Medicine
018 Cardiovascular Diseases and Cardiovascular Surgery
037 Drug Literature Index
LANGUAGE: English
SUMMARY LANGUAGE: English
AB The impairment of nitric oxide (NO)-mediated vasodilation in diabetes has been attributed to increased vascular oxidative stress. Lipoic acid has been shown to have substantial antioxidative properties. The aim of this study was to assess the effect of lipoic acid on NO-mediated vasodilation in diabetic patients in comparison with the well-recognized effect of ascorbic acid. Using venous occlusion plethysmography, we examined the effects of lipoic acid (0.2 mM) and ascorbic acid (1 and 10 mM) on forearm blood flow responses to acetylcholine, sodium nitroprusside and concomitant infusion of the NO-inhibitor, N(G)-monomethyl-L-arginine, in 39 diabetic patients and 11 control subjects. Plasma levels of antioxidants and parameters of lipid peroxidation were measured and correlated to endothelial function tests. Lipoic acid improved NO-mediated vasodilation in diabetic patients, but not in controls. NO-mediated vasodilation was improved by ascorbic acid at 10 mM, but not 1 mM. Improvements of endothelial function by ascorbic acid and lipoic acid were closely related. The beneficial effects of lipoic acid were positively related to plasma levels of malondialdehyde and inversely related to levels of ubiquinol-10. These findings support the concept that oxidative stress contributes to endothelial dysfunction and suggest a therapeutic potential of lipoic acid particularly in patients with imbalance between increased oxidative stress and depleted antioxidant defense. .COPYRGT. 2001 Elsevier Science Inc.

L164 ANSWER 37 OF 68 EMBASE COPYRIGHT 2002 ELSEVIER SCI. B.V.
ACCESSION NUMBER: 2000007356 EMBASE
TITLE: Diabetes-induced metabolic abnormalities in myocardium: Effect of antioxidant therapy.
AUTHOR: Kowluru R.A.; Engerman R.L.; Kern T.S.
CORPORATE SOURCE: R.A. Kowluru, Kresge Eye Institute, 4717 St Antoine, Detroit, MI 48201, United States

SOURCE: Free Radical Research, (2000) 32/1 (67-74).
Refs: 44
ISSN: 1071-5762 CODEN: FRARER
COUNTRY: United Kingdom
DOCUMENT TYPE: Journal; Article
FILE SEGMENT: 003 Endocrinology
018 Cardiovascular Diseases and Cardiovascular Surgery
030 Pharmacology
037 Drug Literature Index
LANGUAGE: English
SUMMARY LANGUAGE: English

AB Effects of hyperglycemia (both diabetes and experimental galactosemia) on cardiac metabolism have been determined. In addition, the effect of supplemental antioxidants on these hyperglycemia-induced abnormalities of cardiac metabolism has been investigated. Diabetes or experimental galactosemia of 2 months duration in rats significantly increased oxidative stress in myocardium, as demonstrated by elevation of thiobarbituric acid reactive substances (TBARS) and lipid fluorescent products in left ventricle. Activity of protein kinase C (PKC) was elevated in the myocardium, and the activities of (Na,K)-ATPase and calcium ATPases were subnormal. Administration of supplemental antioxidants containing a mixture of ascorbic acid, Trolox; .alpha.-tocopherol acetate, N-acetyl cysteine, .beta.-carotene, and selenium prevented both the diabetes-induced and galactosemia-induced elevation of oxidative stress and PKC activity, and inhibited the decreases of myocardial (Na,K)-ATPase and calcium ATPases. The results show that these metabolic abnormalities are not unique to diabetes per se, but are secondary to elevated blood hexose levels, and supplemental antioxidants inhibit these metabolic abnormalities. Our findings suggest that antioxidants inhibit abnormal metabolic processes that may contribute to the development of cardiac disease in diabetes, and offer a potential clinical means to inhibit cardiac abnormalities in diabetes.

L164 ANSWER 38 OF 68 EMBASE COPYRIGHT 2002 ELSEVIER SCI. B.V.
ACCESSION NUMBER: 1999342036 EMBASE
TITLE: Bowman lecture 1998. Diabetic retinopathy: Some cellular, molecular and therapeutic considerations.
AUTHOR: Archer D.B.
CORPORATE SOURCE: D.B. Archer, Department of Ophthalmology, Eye and Ear Clinic, Royal Victoria Hospital, Grosvenor Road, Belfast BT12 6BA, United Kingdom. d.archer@qub.ac.uk
SOURCE: Eye, (1999) 13/4 (497-523).
Refs: 233
ISSN: 0950-222X CODEN: EYEEEC
COUNTRY: United Kingdom
DOCUMENT TYPE: Journal; General Review
FILE SEGMENT: 003 Endocrinology
005 General Pathology and Pathological Anatomy
012 Ophthalmology
029 Clinical Biochemistry
037 Drug Literature Index
038 Adverse Reactions Titles
LANGUAGE: English

L164 ANSWER 39 OF 68 EMBASE COPYRIGHT 2002 ELSEVIER SCI. B.V.
ACCESSION NUMBER: 1999010467 EMBASE
TITLE: Abnormalities of retinal metabolism in diabetes or experimental galactosemia. VI. Comparison of retinal and cerebral cortex metabolism, and effects of antioxidant therapy.
AUTHOR: Kowluru R.A.; Engerman R.L.; Kern T.S.
CORPORATE SOURCE: R.A. Kowluru, Dept. of Ophthalmol./Visual Sciences, University of Wisconsin, Medical Sciences Center, 1300

University Ave., Madison, WI 53706-1532, United States.
rkowluru@facstaff.wisc.edu
SOURCE: Free Radical Biology and Medicine, (1999) 26/3-4 (371-378).
Refs: 44
ISSN: 0891-5849 CODEN: FRBMEH
PUBLISHER IDENT.: S 0891-5849(98)00210-X
COUNTRY: United States
DOCUMENT TYPE: Journal; Article
FILE SEGMENT: 003 Endocrinology
006 Internal Medicine
037 Drug Literature Index
LANGUAGE: English
SUMMARY LANGUAGE: English
AB Metabolic abnormalities observed in retina and in cerebral cortex were compared in diabetic rats and experimentally galactosemic rats. Diabetes or experimental galactosemia of 2 months duration significantly increased oxidative stress in retina, as shown by elevation of retinal thiobarbituric acid reactive substances (TBARS) and subnormal activities of antioxidant defense enzymes, but had no such effect in the cerebral cortex. Activities of sodium potassium adenosine triphosphatase [(Na,K)-ATPase] and calcium ATPase became subnormal in retina as well as in cerebral cortex. In contrast, protein kinase C (PKC) activity was elevated in retina but not in cerebral cortex in the same hyperglycemic rats. Dietary supplementation with an antioxidant mixture (containing ascorbic acid, Trolox, .alpha.-tocopherol acetate, N-acetyl cysteine, .beta.-carotene, and selenium) prevented the diabetes- induced and galactosemia-induced elevation of retinal oxidative stress, the elevation of retinal PKC activity and the decrease of retinal ATPases. In cerebral cortex, administration of the antioxidant diet also prevented the diabetes- induced decreases in (Na,K)-ATPase and calcium ATPases, but had no effect on TBARS and activities of PKC and antioxidant-defense enzymes. The results indicate that retina and cerebral cortex differ distinctly in their response to elevation of tissue hexose, and that cerebral cortex is more resistant than retina to diabetes-induced oxidative stress. The greater resistance to oxidative stress in cerebral cortex, as compared to retina, is consistent with the resistance of cerebral cortex to microvascular disease in diabetes, and with a hypothesis that oxidative stress contributes to microvascular disease in diabetes. Dietary supplementation with these antioxidants offers a means to inhibit multiple hyperglycemia-induced retinal metabolic abnormalities.

L164 ANSWER 40 OF 68 EMBASE COPYRIGHT 2002 ELSEVIER SCI. B.V.
ACCESSION NUMBER: 1999186006 EMBASE
TITLE: Protection against **UVB** inactivation (in vitro) of rat lens enzymes by natural **antioxidants**.
AUTHOR: Reddy G.B.; Bhat K.S.
CORPORATE SOURCE: G.B. Reddy, Molecular Biophysics Unit, Indian Institute of Science, Bangalore - 560 012, India
SOURCE: Molecular and Cellular Biochemistry, (1999) 194/1-2 (41-45).
Refs: 45
ISSN: 0300-8177 CODEN: MCBIB8
COUNTRY: Netherlands
DOCUMENT TYPE: Journal; Article
FILE SEGMENT: 012 Ophthalmology
023 Nuclear Medicine
029 Clinical Biochemistry
046 Environmental Health and Pollution Control
LANGUAGE: English
SUMMARY LANGUAGE: English
AB Oxidative damage, through increased production of free radicals, is believed to be involved in UV-induced cataractogenesis (eye lens opacification). The possibility of UVB radiation causing damage to

important lenticular enzymes was assessed by irradiating 3 months old rat lenses (in RPMI-1640 medium) at 300 nm (100 .mu.W cm-2) for 24 h, in the absence and presence of ascorbic acid, .alpha.-tocopherol acetate and .beta.-carotene. UVB irradiation resulted in decreased activities of hexokinase, glucose-6-phosphate dehydrogenase, aldose reductase, and Na, K-ATPase by 42, 40, 44 and 57% respectively. While endopeptidase activity (229%) and lipid peroxidation (156%) were increased, isocitrate dehydrogenase activity was not altered on irradiation. In the presence of externally added ascorbic acid, tocopherol and .beta.-carotene (separately) to the medium, the changes in enzyme activities (except endopeptidase) and increased lipid peroxidation, due to UVB exposure, were prevented. These results suggest that UVB radiation exerts oxidative damage on lens enzymes and antioxidants were protective against this damage.

L164 ANSWER 41 OF 68 EMBASE COPYRIGHT 2002 ELSEVIER SCI. B.V.
ACCESSION NUMBER: 94255699 EMBASE
DOCUMENT NUMBER: 1994255699
TITLE: Pharmacology of vitamin C.
AUTHOR: Sauberlich H.E.
CORPORATE SOURCE: Department of Nutrition Sciences, University of Alabama,Birmingham, AL 35294, United States
SOURCE: Annual Review of Nutrition, (1994) 14/- (371-391).
ISSN: 0199-9885 CODEN: ARNTD8
COUNTRY: United States
DOCUMENT TYPE: Journal; General Review
FILE SEGMENT: 006 Internal Medicine
030 Pharmacology
037 Drug Literature Index
LANGUAGE: English
SUMMARY LANGUAGE: English
AB A better understanding of the functions of ascorbic acid would help clarify the magnitude of the influence of this vitamin on health-related conditions. Many of the purported benefits require confirmation as well as a knowledge of the mechanism of action. The majority of investigations of the association of vitamin C with various types of cancer, with cardiovascular risk, and with cataract formation were epidemiologic studies. Often it was not possible to discern whether the apparent protective effect was due to vitamin C, vitamin E, or carotene, or to a combined effect of these nutrients or of additional factors. Human intervention trials may provide definitive and quantitative assessments of the role of vitamin C in health maintenance. We need to gain a more thorough understanding of the interactions of vitamin C with other nutrients, such as vitamin E and carotenoids, in order to appreciate the role of vitamin C in disease prevention. Investigators are increasingly recognizing the diverse functions of vitamin C in the body in addition to its role in collagen synthesis. However, the functional consequences of these many important roles of vitamin C remain essentially unknown. Excluding scurvy, the health consequences of inadequate vitamin C status are not well characterized. Nonetheless, epidemiologic evidence suggests a role for vitamin C in cancer and heart disease as well as in a number of other diseases.

L164 ANSWER 42 OF 68 EMBASE COPYRIGHT 2002 ELSEVIER SCI. B.V.
ACCESSION NUMBER: 92300409 EMBASE
DOCUMENT NUMBER: 1992300409
TITLE: Effect of L-**ascorbic acid** 2-**phosphate** on cultured keratocytes the fifth report.
AUTHOR: Saika S.; Uenoyama K.; Hiroi K.; Ooshima A.
CORPORATE SOURCE: Department of Ophthalmology, Wakayama Medical College, 7-Bancho 27,Wakayama 640, Japan
SOURCE: Folia Ophthalmologica Japonica, (1992) 43/8 (920-923).
ISSN: 0015-5867 CODEN: NGKYA3

COUNTRY: Japan
DOCUMENT TYPE: Journal; Article
FILE SEGMENT: 012 Ophthalmology
029 Clinical Biochemistry
030 Pharmacology
037 Drug Literature Index
LANGUAGE: Japanese
SUMMARY LANGUAGE: English; Japanese

L164 ANSWER 43 OF 68 EMBASE COPYRIGHT 2002 ELSEVIER SCI. B.V.
ACCESSION NUMBER: 93048476 EMBASE
DOCUMENT NUMBER: 1993048476
TITLE: Effect of L-**ascorbic acid** 2-**phosphate** on corneal wound healing. II: Experimental study with corneal alkali burn in rabbits.
AUTHOR: Saika S.
CORPORATE SOURCE: Department of Ophthalmology, Wakayama Medical College,Wakayama, Japan
SOURCE: Journal of the Wakayama Medical Society, (1992) 43/3 (413-423).
ISSN: 0043-0013 CODEN: WKMIAO
COUNTRY: Japan
DOCUMENT TYPE: Journal; Article
FILE SEGMENT: 013 Dermatology and Venereology
030 Pharmacology
037 Drug Literature Index
LANGUAGE: Japanese
SUMMARY LANGUAGE: English

L164 ANSWER 44 OF 68 WPIDS COPYRIGHT 2002 DERWENT INFORMATION LTD
ACCESSION NUMBER: 2002-010838 [01] WPIDS
DOC. NO. CPI: C2002-002676
TITLE: Protecting organisms, organs, tissues, cells or their components against radicals or oxidants using compatible solutes such as myoinositol phosphate, useful in medical, cosmetic or health food applications.
DERWENT CLASS: B05 D16 D21 D22
INVENTOR(S): SCHWARZ, T
PATENT ASSIGNEE(S): (BITO-N) BITOP GES BIOTECHNISCHE OPTIMIERUNG MBH
COUNTRY COUNT: 22
PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
WO 2001076572	A2	20011018	(200201)*	GE	15

RW: AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE TR
W: CA JP US

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
WO 2001076572	A2	WO 2001-EP3935	20010406

PRIORITY APPLN. INFO: DE 2000-10018225 20000412
AB WO 200176572 A UPAB: 20020105
NOVELTY - A method for the protection of organisms, organs, tissues, cells or their organic components against radicals and oxidants involves adding a compatible solute (I) to the components to be protected.
DETAILED DESCRIPTION - An INDEPENDENT CLAIM is also included for the use of (I) as above, where (I) is one or more of di-myoinositol phosphate (DIP), cyclic 2,3-diphosphoglycerate (cDPG), 1,1-diglycerin-phosphate

(DGP), beta -mannosyl glycerate (firoin), beta -mannosyl glyceramide (firoin-A), di-mannosyl-d-iinositol phosphate and their derivatives.

ACTIVITY - Cardiant; Cerebroprotective; Immunosuppressive; Anti-HIV; Antiallergic; Antianginal; Antiarthritic; Antiasthmatic; Antiarteriosclerotic; Hemostatic; Cytostatic; Ophthalmological; Vasotropic; Hepatotropic; Antidiabetic; Antiinflammatory; Hypotensive; Nephrotropic; Nootropic; Gynecological; Antimigraine; Neuroprotective; Antiseborrheic; Antirheumatic; Spasmolytic; Antiparkinsonian; Dermatological.

MECHANISM OF ACTION - Radical scavenger; Antioxidant.

Di-myoinositol phosphate had a radical protective factor of 28 +/- 4 x 1014 in scavenging tests using 2,2-bis-(1,1,3,3-tetramethylbutyl)-phenyl)-1-picryl hydrazyl (DPPH) radicals (compared with 38 +/- 4 x 1014 for the strong scavenger **ascorbic acid**-2-**phosphate** and 4 x 1012 for the weak scavenger ectoine).

USE - The components to be protected are specifically proteins, lipids, fats or nucleic acids (as organic materials), humans, animals or microorganisms (as organisms) or the skin, kidneys, heart or extremities (as organs or tissues). In particular the use of (I) is claimed for the preparation of: (a) a medicament for the treatment of diseases caused by radicals and oxidants, specifically heart disease (e.g. cardiac infarction), stroke, organ transplant rejection, AIDS, allergies, angina, arthritis, asthma, arteriosclerosis, internal, gum or other bleeding, cancer, cataracts, blood flow problems, cirrhosis, Type II **diabetes**, edema, exhaustion, hay fever, heart attacks, hemorrhoids, hypertension, tissue inflammation, liver or kidney damage, impotence, memory loss, menstrual disorders, migraine, multiple sclerosis, night blindness, venous inflammation, prostate problems, dandruff, respiratory problems, connective tissue diseases, senility, rheumatism, skin cancer, swollen extremities, spasms or neurodegenerative diseases (e.g. Huntington's disease, Parkinson's disease, Lou Gehrig's disease or Alzheimer's disease); (b) a cosmetic and/or dermatological preparation for the prophylaxis or treatment of skin damage or disorders caused by radicals and oxidants, specifically dryness, dermatosis or age spots; or (c) a foodstuff for the prophylaxis or treatment of damage or disorders caused by radicals and oxidants.

ADVANTAGE - (I) act directly on hydroxyl and other radicals.

Dwg.0/0

L164 ANSWER 45 OF 68 WPIDS COPYRIGHT 2002 DERWENT INFORMATION LTD
ACCESSION NUMBER: 2001-355218 [37] WPIDS
DOC. NO. CPI: C2001-110037
TITLE: A method for enhancing thrombopoiesis, myelopoiesis or erythropoiesis, comprises the administration of a steroid.
DERWENT CLASS: B01
INVENTOR(S): FRINCKE, J M; PRENDERGAST, P T; READING, C L
PATENT ASSIGNEE(S): (HOLL-N) HOLLIS-EDEN PHARM INC
COUNTRY COUNT: 93
PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
WO 2001030802	A2	20010503	(200137)*	EN	146
RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ NL OA PT SD SE SL SZ TZ UG ZW					
W: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CR CU CZ DE DK DM DZ EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG UZ VN YU ZA ZW					
AU 2000079880	A	20010508	(200149)		

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
WO 2001030802 A2		WO 2000-US26771	20000928
AU 2000079880 A		AU 2000-79880	20000928

FILING DETAILS:

PATENT NO	KIND		PATENT NO
AU 2000079880 A		Based on	WO 200130802

PRIORITY APPLN. INFO: US 1999-161453P 19991025

AB WO 200130802 A UPAB: 20010704

NOVELTY - A method for enhancing thrombopoiesis, myelopoiesis or erythropoiesis comprises administration of a steroid (1).

DETAILED DESCRIPTION - A method to enhance hemopoiesis comprises administration of a steroid of formula (1):

R1- R6 and R10 = H, ORPR, SRPR, N(RPR)2, O-Si-(R13)3, CN, NO2, OSO3H, OPO3H, an ester, thioester, phosphoester, phosphothioester, phosphonoester, sulfite ester, sulfate ester, amide, amino acid, peptide, ether, thioether, acyl, thioacyl, carbonate, carbamate, thioacetal, halogen; or an optionally substituted alkyl, alkenyl, alkynyl, aryl, heteroaryl, heterocycle, monosaccharide, or oligosaccharide, or a nucleoside, nucleotide, oligonucleotide, polymer; or

one more of R1-R6, R10, R15, R17 and R18 = =O or =S and the H or the second variable group that is bonded to the same carbon atom is absent; or

R3+R4 = a structure of formula (2);

R7 = CHR10, CHR10-CHR10, CHR10-CHR10-CHR10, CHR10-O-CHR10, CHR10-S-CHR10, CHR10-NRPRCHR10, O, O-CHR10, S, S-CHR10, NRPR or NRPR-CHR10;

R8, R9 = CHR10, CHR10-CHR10, O, O-CHR10, S, S-CHR10, NRPR- or -NRPR-CHR10, or R8 or R9 are absent, leaving a 5-membered ring;

R13 = 1-6C alkyl;

R16 = CH2, O, S or NH;

D = a heterocycle or a 4-7-membered ring that comprises saturated carbon atoms, where 1, 2 or 3 ring carbon atoms of the 4-7-membered ring are optionally independently substituted with O, S or NR PR or where 1, 2 or 3 hydrogen atoms of the heterocycle or 1 or 2 hydrogen atoms of the 4-, 5-, 6-, or 7-membered ring are substituted with ORPR, SRPR N(PR)2, O-Si-(R13)3, CN, NO2, an ester, thioester, phosphoester, phosphothioester, sulfite ester, sulfate ester, an amide, amino acid, peptide, ether, thioether, acyl group, thioacyl group, carbonate, carbamate, thioacetal, halogen, or alkyl, alkenyl, alkynyl, aryl, heteroaryl, monosaccharide, oligosaccharide (all optionally substituted), or a nucleoside, a nucleotide, an oligonucleotide or a polymer, or, one more of the ring carbons are substituted with =O or =S; or D comprises two 5- or 6-membered rings, wherein the rings are fused or are linked by 1 or 2 bonds,

provided that the compound is not 5-androstene-3 beta -ol-17-one, 5-androstene-3 beta ,17 beta -diol, 5-androstene-3 beta ,7 beta ,17 beta -triol or a derivative of any of these three compounds that can convert to these compounds by hydrolysis.

RPR = H, protecting group, or both RPRtogether are a protecting group (this definition is stated from the disclosure).

ACTIVITY - Immunostimulant; hemostatic; coagulant.

A patient infected with HIV virus was treated with 16 alpha -bromoepiandrosterone (BrEA). The patients blood parameters were obtained at the start and end of the treatment. The results showed that BeEA enhanced blood cell counts by increase in blood platelets (from 119 to 225 micro L-1) and neutrophils (from 2.02 to 3.60 x 109/L) after the treatment or by increase of NK cells (from 144 to 425 CD16+/56+ NK cells mm-3).

MECHANISM OF ACTION - None given.

USE - The method of the invention is useful for enhancing

thrombopoiesis, myelopoiesis or erythropoiesis in a subject by administering to the subject, or delivering to the subject's tissues, an effective amount of the compound (I) (claimed). the invention can be used to treat neutropenia and thrombocytopenia.

ADVANTAGE - The subject's circulating platelets, red cells, mature myelomonocytic cells, or their precursor cells, in circulation or in tissue is detectably increased (claimed).

Dwg.0/0

L164 ANSWER 46 OF 68 WPIDS COPYRIGHT 2002 DERWENT INFORMATION LTD
ACCESSION NUMBER: 2001-273487 [28] WPIDS
DOC. NO. NON-CPI: N2001-195334
DOC. NO. CPI: C2001-082929
TITLE: Modulating osteoblast proliferation or differentiation for treating bone diseases, e.g. osteoporosis, bone tumor, comprises administering an estrogen related receptor (ERR) alpha agonist, antagonist, antibody or ERR alpha gene.
DERWENT CLASS: B04 D16 S03
INVENTOR(S): AUBIN, J; BONNELYE, E; AUBIN, J E
PATENT ASSIGNEE(S): (UTOR) UNIV TORONTO GOVERNING COUNCIL; (AUBI-I) AUBIN J E; (BONN-I) BONNELYE E
COUNTRY COUNT: 94
PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
WO 2001022988	A1	20010405	(200128)*	EN	72

RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ NL OA PT SD SE SL SZ TZ UG ZW
W: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CR CU CZ DE DK DM DZ EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW

CA 2284103	A1	20010330	(200128)	EN
AU 2000068141	A	20010430	(200142)	

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
WO 2001022988	A1	WO 2000-CA1015	20000830
CA 2284103	A1	CA 1999-2284103	19990930
AU 2000068141	A	AU 2000-68141	20000830

FILING DETAILS:

PATENT NO	KIND	PATENT NO
AU 2000068141	A Based on	WO 200122988

PRIORITY APPLN. INFO: CA 1999-2284103 19990930

AB WO 200122988 A UPAB: 20010522
NOVELTY - Increasing or reducing (M1) osteoblast proliferation or differentiation, comprises administering an estrogen related receptor alpha (ERR alpha) agonist or antagonist, a purified ERR alpha or antibody, a nucleotide sequence encoding ERR alpha , an antisense nucleotide sequence complementary to the sequence encoding ERR alpha , or an ERR alpha modulator.

DETAILED DESCRIPTION - Increasing or reducing (M1) osteoblast proliferation or differentiation comprises administering an estrogen related receptor alpha (ERR alpha) agonist or antagonist, a purified ERR alpha or antibody that binds specifically to ERR alpha , a nucleotide

sequence encoding ERR alpha or an antisense nucleotide sequence complementary to or capable of hybridizing to the sequence encoding ERR alpha , or an agent that enhances or reduces expression of a gene encoding ERR alpha .

INDEPENDENT CLAIMS are also included for the following:

(1) a method (M2) for treating a disorder associated with bone loss in a mammal comprising administering:

(a) an ERR alpha agonist;

(b) a substantially purified ERR alpha protein;

(c) a nucleotide sequence encoding ERR alpha protein; or

(d) an agent that enhances expression of a gene encoding an ERR alpha protein;

(2) a method (M3) for treating a disorder associated with unwanted bone formation comprising administering:

(a) an ERR alpha antagonist;

(b) a purified antibody which binds specifically to an ERR alpha protein;

(c) an antisense nucleotide sequence complementary to and capable of hybridizing to a nucleotide sequence encoding an ERR alpha protein;

(d) an agent which reduces expression of a gene encoding an ERR alpha protein;

(3) a method (M4) for screening a candidate compound for its ability to modulate ERR alpha activity comprising:

(a) providing a system for measuring a biological activity of ERR alpha ; and

(b) measuring the biological activity of ERR alpha in the presence or absence of the candidate compound, where a change in ERR alpha activity in the presence of the compound relative to ERR alpha activity without the compound indicates an ability to modulate ERR alpha activity;

(4) methods (M5) for screening a candidate compound for potential efficacy in promoting or inhibiting bone formation comprising:

(a) providing an assay system for determining ERR alpha agonist or antagonist activity of a compound; and

(b) testing the candidate compound for ERR alpha agonist or antagonist activity in the assay, where ERR alpha agonist or antagonist activity indicates potential efficacy as a promoter and inhibitor of bone formation, respectively; and

(5) a pharmaceutical composition comprising:

(a) an ERR alpha agonist, a substantially purified ERR alpha protein, a nucleotide sequence encoding ERR alpha protein, or an agent that enhances expression of a gene encoding an ERR alpha protein; or

(b) an ERR alpha antagonist, a purified antibody which binds specifically to an ERR alpha protein, an antisense nucleotide sequence complementary to and capable of hybridizing to a nucleotide sequence encoding an ERR alpha protein, or an agent which reduces expression of a gene encoding an ERR alpha protein.

ACTIVITY - Osteopathic; cytostatic; antiarthritic.

MECHANISM OF ACTION - Gene therapy.

USE - The method is useful for increasing or reducing osteoblast proliferation or differentiation in a mammal. The ERR alpha agonist, ERR alpha protein, a nucleotide sequence encoding ERR alpha protein, or an agent that enhances expression of a gene encoding an ERR alpha protein may be used in treating a disorder associated with bone loss, such as osteoporosis, osteoarthritis, Paget's disease, periodontal disease, osteolytic bone tumor metastases in e.g. breast cancer and multiple myeloma, osteochondrodysplasias, osteogenesis imperfecta, sclerosing bone dysplasias and osteomalacia. The ERR alpha antagonist, an antibody which binds specifically to ERR alpha , an antisense nucleotide sequence complementary to and capable of hybridizing to a nucleotide sequence encoding an ERR alpha protein, or an agent which reduces expression of a gene encoding an ERR alpha protein may be used in treating fibrodysplasia ossificans progressiva, or osteoblastic bone metastases, such as prostate cancer and osteosarcomas. The pharmaceutical compositions are useful in

treating disorders associated with bone loss by promoting bone formation, and in reducing bone formation. Primary RC (rat calvaria) cells were grown in 35 mm tissue culture dishes at 2 multiply 104/dish in alpha -MEM (undefined) containing 10% heat-inactivated FBS (fetal bovine serum) and supplemented with 50 micro g/ml **ascorbic acid**, sodium beta -**glycerophosphate** and dexamethasone. Cells were transfected at 50% confluence with pcDNA3 empty plasmid (control) and pcDNA3-ERR alpha . Resuspended RC cells were plated in 24 well plates at 104 cells/well. Antisense oligonucleotide inhibition of ERR alpha expression was accomplished with a 20-base phosphorothioate-modified oligonucleotide, localized to the A/B domain. Oligonucleotides (0.1-5 micro M) were added directly to **cells** either during the **proliferation** phase (days 1-6) and 0.5-2.0 micro M oligonucleotides were added during differentiation phase (days 6-11 or days 9-15). mRNA was collected at day 6 for the proliferation experiments and at day 15 for the differentiation experiments. Nodules were counted at 15 days. Twenty four hours after treatment with sense or antisense oligonucleotides, ERR alpha was detectable in bone nodules in untreated cultures and those treated with 1 micro M sense oligonucleotides but was almost undetectable in bone nodules present in cultures treated with 1 micro M antisense. RC **cells** treated at the **proliferation** stage showed a significant and specific dose-dependent decrease in cell number (30% at 1 micro M and 40% at 2 micro M) at day 6 in dishes treated with antisense compared with the sense-treated or the controls. RC cells treated at days 9-15 with antisense oligonucleotides showed small but dose-dependent and significant decrease in the number of mineralized bone nodules formed.
Dwg.0/12

L164 ANSWER 47 OF 68 WPIDS COPYRIGHT 2002 DERWENT INFORMATION LTD
ACCESSION NUMBER: 2001-041105 [05] WPIDS
DOC. NO. CPI: C2001-011970
TITLE: Pharmaceutical composition useful for stimulating epithelial **cell proliferation** and basal keratinocytes for wound healing comprises keratinocyte growth factor-2, in liquid or lyophilized forms.
DERWENT CLASS: A96 B04
INVENTOR(S): CHOPRA, A; GENTZ, R L; KAUSHAL, P; KHAN, F; SPITZNAGEL, T; UNSWORTH, E
PATENT ASSIGNEE(S): (CHOP-I) CHOPRA A; (GENT-I) GENTZ R L; (HUMA-N) HUMAN GENOME SCI INC; (KAUS-I) KAUSHAL P; (KHAN-I) KHAN F; (SPIT-I) SPITZNAGEL T; (UNSW-I) UNSWORTH E
COUNTRY COUNT: 93
PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
WO 2000072872	A1	20001207	(200105)*	EN	101

RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ NL OA PT SD SE SL SZ TZ UG ZW
W: AE AG AL AM AT AU AZ BA BB BG BR BY CA CH CN CR CU CZ DE DK DM DZ EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW

AU 2000055932 A 20001218 (200118)

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
WO 2000072872	A1	WO 2000-US15186	20000602
AU 2000055932	A	AU 2000-55932	20000602

FILING DETAILS:

PATENT NO	KIND	PATENT NO
AU 2000055932 A	Based on	WO 200072872

PRIORITY APPLN. INFO: US 1999-160913P 19991022; US 1999-137448P 19990602

AB WO 200072872 A UPAB: 20011129

NOVELTY - Pharmaceutical composition (I) comprises:

(1) 0.02-40 mg/ml (w/v) keratinocyte growth factor-2 (KGF-2) polypeptide;

(2) buffer having buffering capacity of pH 5-8 at 5-50 mM;

(3) a diluent to bring the composition to a designated volume; and

(4) a preservative such as m-cresol, chlorobutanol, or a mixture of methyl paraben and propyl paraben or their reaction products.

ACTIVITY - Vulnerary; antiinflammatory; antipsoriatic; antidiabetic; ophthalmological; hemostatic. No biological data is given.

MECHANISM OF ACTION - Soft tissue growth or regeneration promoter; keratinocyte **cell** growth and **proliferation** stimulator.

USE - Used for promoting or accelerating soft tissue growth, for wound healing or treating mucocytis or inflammatory bowel disease. The KGF-2 polypeptides stimulate keratinocyte **cell** growth and **proliferation** and (I) is used to stimulate epithelial **cell proliferation** and basal keratinocytes for wound healing and to stimulate hair follicle production and healing of dermal wounds. These wounds may be of superficial nature or may be deep and involve damage of the dermis and the epidermis of skin. (I) Also promotes the healing of anastomotic and other wounds caused by surgical procedures in individuals which both heal wounds at a normal rate and are healing impaired. (I) may also be used to stimulate differentiation of cells, for example muscle cells, nervous tissue, prostate cells and lung cells.

(I) Is clinically useful in stimulating wound healing of wounds including surgical wounds, excisional wounds, deep wounds involving damage of the dermis and epidermis, eye tissue wounds, dental tissue wounds, oral cavity wounds, **diabetic** ulcers, dermal ulcers, cubitus ulcers, arterial ulcers, venous stasis ulcers, and **burns** resulting from heat exposure to extreme temperatures of heat or cold, or exposure to chemicals. (I) is useful for promoting the healing of wounds associated with ischemia and ischemic injury, e.g. chronic venous leg ulcers caused by an impairment of venous circulatory system return and/or insufficiency etc. The KGF-2 polypeptides in the formulation are used to stimulate epithelial **cell proliferation** and basal keratinocytes for the purposes of treating **burns** and skin defects such as psoriasis and epidermolysis bullosa, to increase the adherence of skin grafts to a wound bed and to stimulate re-epithelialization from the wound bed to reduce the side effects of gut toxicity that result from radiation, chemotherapy treatments or viral infections and to treat diseases and conditions of the liver, lung, kidney.

KGF-2 can be used to treat inflammatory bowel diseases, **diabetes**, thrombocytopenia, hypofibrinogenemia, hypoalbuminemia, hemorrhagic cystitis, xerostomia, keratoconjunctivitis sicca. KGF-2 can also be used to stimulate the epithelial cells of the salivary glands, lacrimal glands and stimulating the epithelial cells of the salivary glands, lacrimal glands and stimulating re-epithelialization of the sinuses and the growth of nasal mucosa.

ADVANTAGE - The composition is stable over prolonged periods of storage, has increased pharmacological activity or effectiveness of the polypeptide and/or allow facile application or administration of the polypeptide in therapeutic regimens.

Dwg.0/5

L164 ANSWER 48 OF 68 WPIDS COPYRIGHT 2002 DERWENT INFORMATION LTD

ACCESSION NUMBER: 2001-060971 [07] WPIDS
CROSS REFERENCE: 2000-096808 [08]
DOC. NO. CPI: C2001-016755
TITLE: New vitamin B6 analogs useful for treating diseases of skin and bone and viral infections.
DERWENT CLASS: A96 B03 B04 C02 C03 D13 D21
INVENTOR(S): KESEL, A J; OBERTHUER, W
PATENT ASSIGNEE(S): (OBER-I) OBERTHUR W; (OBER-I) OBERTHUER W
COUNTRY COUNT: 92
PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
WO 2000066599	A1	20001109	(200107)*	EN	66
RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW NL OA PT SD SE SL SZ TZ UG ZW					
W: AE AG AL AM AT AU AZ BA BB BG BR BY CA CH CN CR CU CZ DE DK DM DZ EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW					
AU 2000045590	A	20001117	(200111)		

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
WO 2000066599	A1	WO 2000-EP3855	20000428
AU 2000045590	A	AU 2000-45590	20000428

FILING DETAILS:

PATENT NO	KIND	PATENT NO
AU 2000045590	A Based on	WO 200066599

PRIORITY APPLN. INFO: US 1999-437627 19991110; WO 1999-EP2960 19990430

AB WO 200066599 A UPAB: 20010224
NOVELTY - Vitamin B6 analogs (I) are new.
DETAILED DESCRIPTION - Vitamin B6 analogs of formula (I) and their salts and esters are new.
R1 = H, 2-22C acyl (excluding retinoyl) or an **ascorbic acid** group;
R4 = H, OH or an **ascorbic acid** group;
R5 = an **ascorbic acid** group or OP(=O)(OH)OR2;
R2 = H or 6-30C aryl;
X1-X3 = O, S or NR3;
R3 = H, 1-6C alkyl, or 2-6C acyl;
Y = O, S or NH and
Z = CH or N
provided that at least one of R1 or R2 is not H.
ACTIVITY - Dermatological; neuroprotective; nootropic; antidiabetic; antiallergic; antipsoriatic; osteopathic; Antidote; virucide; antiparasitic; antibacterial; fungicide; hepatotropic; antiinflammatory; anti-HIV; cytostatic; vulnerary; immunostimulant; immunosuppressant; immunomodulatory.
A 25 year old male patient with a common cold was treated orally with 50 mg of (2RS, 4R)-2-(3-hydroxy-5-(hydroxymethyl)-2-methyl-4-pyridinyl)-4-thiazolidine carboxylic acid in a water solution. After 15 minutes the disease symptoms disappeared.
MECHANISM OF ACTION - Antioxidant; vitamin B6 antagonist; radical scavenger.
USE - Useful for treating skin conditions (claimed). (I) Are useful

for the treatment of multiple sclerosis, degenerative cell, tissue and organ processes, Alzheimer's disease, **diabetes**, allergies, neurological disorders, skin diseases such as psoriasis, bone and bone tissue disorders such as osteoporosis, as antidotes against organo-phosphorous compounds, and as antiviral, antiparasitic and antifungal agents. (I) are especially useful for the treatment of viral diseases caused by enveloped viruses such as hepatitis, herpes and retroviruses and influenza and rhinoviruses. (I) also have cytoprotecting, immunomodulating, stimulating and inhibiting activity in vitro, and suppress **cell proliferation** in cancer **cells** and cause cell death in these cells. (I) Are useful as ultra-radical scavengers, skin-protectors, sun protector factors and as wound healing promoters. (I) Are used as multipurpose stabilizers for dermatological products. (I) May also be useful against bacterial diseases.

ADVANTAGE - Toxic or cytopathic effects have not been observed with (I) in a number of cell culture systems. (I) Act as relatively non-toxic polyspecific drugs with an amphoteric structure, as multiplex buffer molecules.

Dwg.0/0

L164 ANSWER 49 OF 68 WPIDS COPYRIGHT 2002 DERWENT INFORMATION LTD
ACCESSION NUMBER: 2000-571931 [53] WPIDS
DOC. NO. CPI: C2000-170418
TITLE: Maintaining cells in a selected redox state using a redox clamping agent e.g. for sensitizing cells to chemotherapeutic agents.
DERWENT CLASS: B05
INVENTOR(S): MERMELSTEIN, F H; YURKOW, E J
PATENT ASSIGNEE(S): (RUTF) UNIV RUTGERS STATE NEW JERSEY
COUNTRY COUNT: 91
PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
WO 2000048632	A1	20000824	(200053)*	EN	23

RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW NL OA PT SD SE SL SZ TZ UG ZW
W: AE AL AM AT AU AZ BA BB BG BR BY CA CH CN CR CU CZ DE DK DM EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW

AU 2000034915	A	20000904	(200103)	
EP 1159004	A1	20011205	(200203)	EN

R: AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT RO SE SI

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
WO 2000048632	A1	WO 2000-US3878	20000215
AU 2000034915	A	AU 2000-34915	20000215
EP 1159004	A1	EP 2000-913470	20000215
		WO 2000-US3878	20000215

FILING DETAILS:

PATENT NO	KIND		PATENT NO
AU 2000034915	A	Based on	WO 200048632
EP 1159004	A1	Based on	WO 200048632

PRIORITY APPLN. INFO: US 1999-120128P 19990216

AB WO 200048632 A UPAB: 20001023
NOVELTY - Maintaining cells in a selected redox state by contacting the cells with a redox clamping agent, is new.
DETAILED DESCRIPTION - Maintaining cells in a selected redox state comprises contacting the cells with a redox clamping agent.
INDEPENDENT CLAIMS are also included for the following:
(1) a method of sensitizing selected cells to a chemotherapeutic agent known to induce a stress response in cells comprising contacting the cells with the chemotherapeutic agent and a redox clamping agent;
(2) a method of treating cancer comprising administering a chemotherapeutic agent known to induce a stress response in cancer cells in combination with a redox clamping agent;
(3) a method of inhibiting hyperproliferation of cells comprising contacting cells with a redox clamping agent so that the cells are maintained in a redox state that is not consistent with **cell proliferation**; and
(4) a method of stabilizing the redox state of cells with abnormal fluctuations in their redox state comprising contacting cells with a redox clamping agent.
ACTIVITY - Cytostatic; dermatological; antidiabetic.
Tests are described e.g. using buthionine sulfoximine, 2,3-dimercapto-1-propane sulfonic acid and **ascorbic acid**, but no results are given.
MECHANISM OF ACTION - Apoptosis stimulator.
USE - For maintaining cells in a selected redox state useful for sensitizing cells to chemotherapeutic agents (such as butyrate and butyrate analogs), to inhibit hyperproliferation of **cells** (e.g. **proliferation** associated with angioplastic procedures or skin conditions such as psoriasis) and to stabilize redox state of cells with abnormal fluctuations in their redox state (e.g. allowing **diabetics** to more easily manage the disease by normalizing serum glucose levels).
ADVANTAGE - Redox clamping makes cancer cells more sensitive to chemotherapeutic agents and inhibits the development of resistance
Dwg.0/0

L164 ANSWER 50 OF 68 WPIDS COPYRIGHT 2002 DERWENT INFORMATION LTD
ACCESSION NUMBER: 2000-431568 [37] WPIDS
CROSS REFERENCE: 2000-431565 [37]
DOC. NO. CPI: C2000-131235
TITLE: New fragment of connective tissue growth factor (CTGF) polypeptide having mitogenic activity, useful in wound healing, bone and tissue repair.
DERWENT CLASS: B04 D16
INVENTOR(S): GROTENDORST, G R; NEFF, T B
PATENT ASSIGNEE(S): (FIBR-N) FIBROGEN INC; (UYMI-N) UNIV MIAMI
COUNTRY COUNT: 91
PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
WO 2000035939	A2	20000622	(200037)*	EN	71
RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW NL OA PT SD SE SL SZ TZ UG ZW					
W: AE AL AM AT AU AZ BA BB BG BR BY CA CH CN CR CU CZ DE DK DM EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW					
AU 2000021819	A	20000703	(200046)		
EP 1140964	A2	20011010	(200167)	EN	
R: AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT RO SE SI					

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
WO 2000035939	A2	WO 1999-US29654	19991214
AU 2000021819	A	AU 2000-21819	19991214
EP 1140964	A2	EP 1999-966224	19991214
		WO 1999-US29654	19991214

FILING DETAILS:

PATENT NO	KIND		PATENT NO
AU 2000021819	A	Based on	WO 200035939
EP 1140964	A2	Based on	WO 200035939

PRIORITY APPLN. INFO: US 1998-112241P 19981214; US 1998-112240P 19981214

AB WO 200035939 A UPAB: 20011119

NOVELTY - A fragment (I) of connective tissue growth factor (CTGF) polypeptide having mitogenic activity, is new.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for the following:

(1) a polynucleotide encoding (I);

(2) an antibody that specifically binds to (I);

(3) an antisense molecule that binds to a nucleic acid sequence encoding (I);

(4) a method for treating a CTGF-associated disease or disorder comprising administering the antibody of (2) or the antisense molecule of (3); and

(5) a method of identifying an agent or compound that modulates mitogenic activity of (I) comprising:

(a) contacting a cell with a test agent and with a mitogenic (I) under conditions that allow the components to interact; and

(b) comparing the ability of the **cell** to **proliferate** in the presence of the agent to the ability of a **cell** to **proliferate** in the absence of the agent, where a difference in the **proliferative** ability of the **cells** is indicative of an agent or compound that modulates mitogenic activity of (I).

ACTIVITY - Vulnerary.

MECHANISM OF ACTION - None given.

A continuous line of cultured normal rat kidney (NRK) fibroblasts, designated as clone NRK-49F, were obtained from the American Type Culture Collection (ATCC) to produce cell cultures. Human foreskin fibroblasts were established from explant cultures. Cell cultures were maintained in Dulbecco's modified eagle media (DME) containing 2.5% fetal bovine serum and 2.5% NuSerum I and passaged prior to confluence.

To examine the role of CTGF fragments in mitogenesis and DNA synthesis, growth arrested monolayers of NRK and human foreskin fibroblasts were prepared by seeding 10,000 cells/well in 48 well plates, and the cells were allowed to grow to confluence in 5 to 7 days in DME and 2.5% fetal bovine serum/Nu-Serum. Fibroblast monolayers were then serum-starved in DME containing 25 mM HEPES (4-(2-hydroxyethyl)-1-piperazineethanesulfonic acid) and ITS premix (Collabrative Biomedical) for 1 to 8 days. **Ascorbic acid** (50 mg/ml) and biological agents (0.5 ng/ml epidermal growth factor plus CTGF fragments) were then added. Cultures were labeled with 3H-thymidine for the terminal 24 hours of the 48 hour treatment period, and DNA synthesis was assessed by precipitation with cold trichloroacetic acid.

The CTGF fragments (1 ng/ml) produced recombinantly by the expression of exon 4 and exon 5 only and by cleavage of the full length CTGF induced DNA synthesis in NRK fibroblasts were approximately as effective as 1

ng/ml intact full-length CTGF or 5 ng/ml tumor growth factor-beta. Notably, N-terminal CTGF fragments did not stimulate NRK fibroblast mitogenesis.

USE - The antibody that specifically binds to (I) is used to treat a CTGF-associated disease or disorder, e.g. a fibroproliferative disease/disorder such as kidney fibrosis, scleroderma, pulmonary fibrosis, liver fibrosis, arthritis, hypertropic scarring, atherosclerosis, **diabetic** nephropathy and retinopathy, hypertension, kidney disorders, angiogenesis-related disorders, skin fibrotic disorders, and cardiovascular disorders (claimed).

(I) is useful in wound healing, bone and tissue repair.

Dwg.0/7

L164 ANSWER 51 OF 68 WPIDS COPYRIGHT 2002 DERWENT INFORMATION LTD
ACCESSION NUMBER: 2000-331250 [29] WPIDS
DOC. NO. CPI: C2000-100433
TITLE: Serumfree medical solution (I) comprises e.g. an aqueous nutrient and electrolyte solution, a glycosaminoglycan, a deturgescent agent and an energy source, maintains and enhances the preservation of mammalian tissues.
DERWENT CLASS: A96 B01 B04 B05 D22
INVENTOR(S): SKELNIK, D L; SKELNIK, D A
PATENT ASSIGNEE(S): (SKEL-I) SKELNIK D L; (BAUL) BAUSCH & LOMB SURGICAL INC
COUNTRY COUNT: 29
PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
EP 1000541	A1	20000517	(200029)*	EN	27
R: AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT RO SE SI					
AU 9957108	A	20000511	(200031)		
CA 2288540	A1	20000505	(200039)	EN	
JP 2000198701	A	20000718	(200040)		19
US 6153582	A	20001128	(200063)		

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
EP 1000541	A1	EP 1999-308702	19991102
AU 9957108	A	AU 1999-57108	19991028
CA 2288540	A1	CA 1999-2288540	19991103
JP 2000198701	A	JP 1999-313063	19991102
US 6153582	A	US 1998-186580	19981105

PRIORITY APPLN. INFO: US 1998-186580 19981105

AB EP 1000541 A UPAB: 20000617

NOVELTY - Serum free medical solution (I) comprises e.g. an aqueous nutrient and electrolyte solution, a glycosaminoglycan, a deturgescent agent, a buffer system, an antioxidant, membrane stabilizing agents, an antibiotic or antimycotic agent, ATP or energy precursors, nutrient cell supplements, coenzymes and enzyme supplements and an energy source.

DETAILED DESCRIPTION - Serum free medical solution (I) comprises:

(a) an aqueous nutrient and electrolyte solution;
(b) a glycosaminoglycan;
(c) a deturgescent agent;
(d) a energy source;
(e) a buffer system;
(f) an antioxidant;
(g) membrane stabilizing agents;
(h) an antibiotic or antimycotic agent;

(i) ATP or energy precursors;
(j) nutrient cell supplements;
(k) coenzymes and enzyme supplements;
(l) nucleotide precursors;
(m) hormonal supplements;
(n) non-essential amino acids;
(o) trace minerals and trace elements; and
(p) growth factors (animal, animal recombinant, human recombinant or natural).

An INDEPENDENT CLAIM is also included for a method of treating eye tissue for use in eye surgery comprising keeping the tissue in contact with a solution (I) in the period elapsing between removing the tissue from a donor and implanting it into a recipient.

USE - The composition maintains and enhances the preservation of mammalian tissues, preferably mammalian eye tissues, before or after surgery, surgical use of a laser, or degenerative eye conditions (all claimed). In a comparative study of a serum free medical solution and standard MEM 2% FBS medium with human corneas. The results showed that after 14 and 28 days in serum free medium were able to maintain viable corneal endothelium equal in performance to corneas stored in MEM 2% FBS. The serum free medium was effective in maintaining normal corneal **cell function** and metabolism making it suitable as an organ culture preservation medium.

ADVANTAGE - The solution is serum free. Serum can be an agent for transmission of diseases. In a comparative study of a serum free medical solution and standard MEM 2% FBS medium with human corneas. The results showed that after 14 and 28 days in serum free medium the tissues were able to maintain viable corneal endothelium equal in performance to corneas stored in MEM 2% FBS. The serum free medium was effective in maintaining normal corneal **cell function** and metabolism making it suitable as an organ culture preservation medium.

Dwg.0/0

L164 ANSWER 52 OF 68 WPIDS COPYRIGHT 2002 DERWENT INFORMATION LTD
ACCESSION NUMBER: 1999-418866 [35] WPIDS
DOC. NO. CPI: C1999-123113
TITLE: New compositions containing keratinocyte growth factor-2.
DERWENT CLASS: A11 A96 B04
INVENTOR(S): CHOPRA, A; GENTZ, R L; KAUSHAL, P; KHAN, F; SPITZNAGEL, T; UNSWORTH, E
PATENT ASSIGNEE(S): (HUMA-N) HUMAN GENOME SCI INC
COUNTRY COUNT: 85
PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
WO 9932135	A1	19990701	(199935)*	EN	86
RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW NL OA PT SD SE SZ UG ZW					
W: AL AM AT AU AZ BA BB BG BR BY CA CH CN CU CZ DE DK EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT UA UG US UZ VN YU ZW					
AU 9919057	A	19990712	(199950)		
EP 1041996	A1	20001011	(200052)	EN	
R: AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE					
CN 1283997	A	20010214	(200130)		
US 6238888	B1	20010529	(200132)		
KR 2001033484	A	20010425	(200164)		
MX 2000006154	A1	20010301	(200170)		
JP 2001526239	W	20011218	(200203)		91

APPLICATION DETAILS:

PATENT NO	KIND		APPLICATION	DATE
WO 9932135	A1		WO 1998-US26085	19981222
AU 9919057	A		AU 1999-19057	19981222
EP 1041996	A1		EP 1998-963812	19981222
			WO 1998-US26085	19981222
CN 1283997	A		CN 1998-813339	19981222
US 6238888	B1	Provisional	US 1997-68493P	19971222
			US 1998-218444	19981222
KR 2001033484	A		KR 2000-706985	20000622
MX 2000006154	A1		MX 2000-6154	20000621
JP 2001526239	W		WO 1998-US26085	19981222
			JP 2000-525126	19981222

FILING DETAILS:

PATENT NO	KIND		PATENT NO
AU 9919057	A	Based on	WO 9932135
EP 1041996	A1	Based on	WO 9932135
JP 2001526239	W	Based on	WO 9932135

PRIORITY APPLN. INFO: US 1997-68493P 19971222; US 1998-218444 19981222

AB WO 9932135 A UPAB: 20011203

NOVELTY - Compositions containing keratinocyte growth factor-2 prepared as ligand, lyophilized or gel formulations, used for treating e.g. wound, psoriasis, inflammatory bowel disease, ulcers or **diabetes** are new.

DETAILED DESCRIPTION - (A) A novel pharmaceutical composition comprises:

(1) 0.02 to 40 mg/ml of a keratinocyte growth factor-2 (KGF-2) polypeptide;

(2) a buffer of pH 5.0 to 8.0 at a concentration of 5-50 mM; and

(3) a diluent to bring the composition to a designated volume; or a reaction product of these.

INDEPENDENT CLAIMS are also included for the following:

(1) a pharmaceutical composition comprising:

(a) as in (Aa)-(Ac); and

(b) (b) a bulking agent; or a reaction product of these;

(2) a pharmaceutical composition comprising:

(i) a 0.02 to 40 mg/ml of KGF-2 polypeptide;

(ii) 5-20 mM of citric acid or a salt;

(iii) 0.01-125 mM of NaCl;

(iv) 0.1-10 mM of EDTA; and

(v) 2-15% w/v one or more of sucrose, mannitol, glycine or trehalose; and

(vi) water;

(3) a thickened KGF-2 polypeptide solution comprising formed by mixing:

(a) a topically effective amount of a KGF-2 polypeptide;

(b) 10-500 mM sodium citrate buffer;

(c) 0.01-150 mM NaCl;

(d) 1 mM EDTA;

(e) 0.01-7% sucrose;

(f) 0.75-1.5% (w/w) carboxymethyl cellulose or 0.5-1.5% hydroxypropyl methyl cellulose or 0.25-0.75% hydroxyethyl cellulose or 0-1% carbomer or any combination;

(4) a KGF-2 gel formulation of pH 6.2 comprising:

(a) as in (3a)-(3d);

(b) 0.1-7% sucrose;

(c) 4-18% Pluronic F127 (RTM);

(5) a KGF-2 gel formulation comprising:
(a) 0.01 to 10 mg/ml of a KGF-2 polypeptide;
(b) 5 to 20 mM of sodium citrate;
(c) 10 to 25% (w/v) Pluronic 127 (RTM) or Poloxamer 407 (RTM) and water.

USE - The compositions can be used to stimulate epithelial cell proliferation and basal keratinocytes for the purpose of wound healing, and to stimulate hair follicle production and healing of dermal wounds. The compositions can also be used to stimulate differentiation of cells, e.g. muscle cells, cells which make up nervous tissue, prostate cells and lung cells. They can be used to stimulate wound healing of wounds including surgical wounds, excisional wounds, deep wounds involving damage of the dermis and epidermis, eye tissue wounds, dental tissue wounds, oral cavity wounds, diabetic ulcers, dermal ulcers, cubitus ulcers, arterial ulcers, venous stasis ulcers, and burns resulting from heat exposure to extreme temperatures of heat or cold, or exposure to chemicals, in normal individuals and those subject to conditions which induce abnormal wound healing such as uremia, malnutrition, vitamin deficiencies, obesity, infection, immunosuppression and complications associated with systemic treatment with steroids, radiation therapy, and antineoplastic drugs and antimetabolites. The compositions are also useful for promoting the healing of wounds associated with ischemia and ischemia and ischemic injury, e.g. chronic venous leg ulcers caused by an impairment of venous circulatory system return and/or insufficiency; for promoting dermal reestablishment subsequent to dermal loss, increasing the tensile strength of epidermis and epidermal thickness, and increasing the adherence of skin grafts to a wound bed and to stimulate re-epithelialization from the wound bed, to stimulate epithelial cell proliferation and basal keratinocytes for treating burns and skin defects such as psoriasis and epidermolysis bullosa, to increase the adherence of skin grafts to a wound bed and to stimulate re-epithelialization from the wound bed, to reduce the side effects of gut toxicity that result from radiation, chemotherapy treatments or viral infections, to treat diseases and conditions of the liver, lung, kidney, breast, pancreas, stomach, small intestine, and large intestine, to treat inflammatory bowel diseases, diabetes, thrombocytopenia, hypofibrinogenemia, hypoalbuminemia, hypoglobulinemia, hemorrhagic cystitis, xerostomia, keratoconjunctivitis sicca, to stimulate the epithelial cells of the salivary glands, lacrimal glands and stimulating re-epithelialization of the sinuses and the growth of nasal mucosa.

ADVANTAGE - The co-ingredients used in the formulations provide storage stability to the KGF-2 polypeptide, further enhance soft-tissue healing activity of the therapeutic composition, and/or provide the KGF-2 polypeptide in an active form while allowing facile application and administration for particular therapeutic purposes.
Dwg.0/5

L164 ANSWER 53 OF 68 WPIDS COPYRIGHT 2002 DERWENT INFORMATION LTD
ACCESSION NUMBER: 1997-214773 [20] WPIDS
DOC. NO. CPI: C1997-069439
TITLE: New **ascorbic acid** tocopheryl **phosphate** di ester - useful as antioxidant e.g. in cosmetics or food, or in treatment of ischaemic organ disorders or cataracts.
DERWENT CLASS: B02 D13 D21
INVENTOR(S): IEMURA, M; NAKAMURA, M; OGATA, K; SAITO, N; SAKAUE, T
PATENT ASSIGNEE(S): (SENP) SENJU PHARM CO LTD; (SENP) SENJU SEIYAKU KK
COUNTRY COUNT: 21
PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
EP 768314	A1	19970416	(199720)*	EN	10

R: AT BE CH DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE
CA 2186654 A 19970414 (199733)
JP 09165394 A 19970624 (199735) 6
US 5750516 A 19980512 (199826)

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
EP 768314	A1	EP 1996-116211	19961010
CA 2186654	A	CA 1996-2186654	19960927
JP 09165394	A	JP 1996-260831	19961001
US 5750516	A	US 1996-724509	19960930

PRIORITY APPLN. INFO: JP 1995-265615 19951013
AB EP 768314 A UPAB: 19970516
Phosphoric diester of formula (I) which is preparable by diesterification of phosphoric acid with L-ascorbic acid involving its 5-OH gp. and tocopherol involving its hydroxyl gp., and its salts are new.
USE- (I) has potent antioxidant (radical scavenging) activity. It inhibits prodn. of peroxylipids and in vivo oxidation reactions inducing crosslinking of proteins and may be used in the treatment of ischaemic organ diseases (such as myocardial infarction, heart failure, arrhythmia, cerebral infarction, stroke or **renal failure**), cataracts, aging or climacteric disturbances. It may be used as an antiinflammatory drug. (I) can also be formulated into cosmetic (e.g. for skin care) and food prods.
ADVANTAGE- (I) has high water solubility.
Dwg.0/0

L164 ANSWER 54 OF 68 WPIDS COPYRIGHT 2002 DERWENT INFORMATION LTD
ACCESSION NUMBER: 1996-068684 [07] WPIDS
DOC. NO. CPI: C1996-022307
TITLE: Intraocular irrigating soln. with intraocular pressure-controlling agent - comprises drug, antioxidant or free radical scavenger, electrolytes, cellular energy source, bi carbonate and buffer.
DERWENT CLASS: B05
INVENTOR(S): GAN, O; JANI, R; LORENZETTI, O J
PATENT ASSIGNEE(S): (ALCO-N) ALCON LAB INC
COUNTRY COUNT: 21
PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
WO 9600055	A1	19960104	(199607)*	EN	37
RW: AT BE CH DE DK ES FR GB GR IE IT LU MC NL PT SE					
W: AU CA JP					
AU 9528643	A	19960119	(199616)		
US 5523316	A	19960604	(199628)		8
EP 766553	A1	19970409	(199719)	EN	
R: AT BE CH DE DK ES FR GB GR IE IT LI LU MC NL PT SE					
JP 10502085	W	19980224	(199818)		30
AU 695937	B	19980827	(199846)		

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
WO 9600055	A1	WO 1995-US7723	19950619
AU 9528643	A	AU 1995-28643	19950619
US 5523316	A	US 1994-264812	19940623

EP 766553	A1	EP 1995-923945	19950619
		WO 1995-US7723	19950619
JP 10502085	W	WO 1995-US7723	19950619
		JP 1996-503261	19950619
AU 695937	B	AU 1995-28643	19950619

FILING DETAILS:

PATENT NO	KIND		PATENT NO
AU 9528643	A	Based on	WO 9600055
EP 766553	A1	Based on	WO 9600055
JP 10502085	W	Based on	WO 9600055
AU 695937	B	Previous Publ.	AU 9528643
		Based on	WO 9600055

PRIORITY APPLN. INFO: US 1994-264812 19940623

AB WO 9600055 A UPAB: 19960222

A compsn. for irrigating ophthalmic tissue and controlling intraocular pressure (IOP) during intraocular surgery comprises (i) a drug for controlling IOP, (ii) an antioxidant/free radical scavenger to maintain normal **function** of corneal endothelial **cells**, (iii) electrolytes to main tissue stability, (iv) an energy source to satisfy metabolic requirements of corneal endothelial cells and other ophthalmic tissues during surgery, (v) bicarbonate to maintain the fluid pump system of corneal endothelial cells and other ophthalmic tissues, and (vi) a buffer to maintain pH 6.8-8.0.

USE - The compsns. prevent cell necrosis, maintain normal **cellular functions** and control the relatively large increases in IOP associated with surgical trauma. The prod. pref. comprises 2 pts. which are mixed to form a soln. for use in surgery during the next 24 hrs.

ADVANTAGE - A relatively small amt. of drug is used compared with the dose required if the drug were applied topically using conventional treatment methods. The compsn. enables delivery of a controlled amt. of drug in a sterile system ideally suited for intraocular use and does not use chemical preservatives used in previous parenteral prepns. which may damage ocular tissue.

Dwg.0/0

L164 ANSWER 55 OF 68 WPIDS COPYRIGHT 2002 DERWENT INFORMATION LTD
ACCESSION NUMBER: 1994-186359 [23] WPIDS
DOC. NO. CPI: C1994-084551
TITLE: Antiallergic eye drop contg. docosa hexa enoic ascorbic acid ester - shows improved antiallergic effect and no eye irritation.
DERWENT CLASS: B03
PATENT ASSIGNEE(S): (SAGA) SAGAMI CHEM RES CENTRE; (SANT) SANTEN PHARM CO LTD
COUNTRY COUNT: 1
PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
JP 06122627	A	19940506	(199423)*		4

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
JP 06122627	A	JP 1992-274205	19921013

PRIORITY APPLN. INFO: JP 1992-274205 19921013

AB JP 06122627 A UPAB: 19940727
Antiallergic eye drop contains docosahexaenoic ascorbic acid ester as an effective ingredient.
ADVANTAGE - Docosahexaenoic ascorbic acid ester is water-soluble and shows potent antiallergic effect. The drug causes no eye irritation.
In an example, eye drop comprised 1.0g of docosahexaenoic **ascorbic acid** ester, 0.9g of sodium chloride and appropriate amts. of sodium hydroxide and sterilised distilled water (in 100ml). 1% Docosahexaenoic **ascorbic acid** ester eye drop inhibited allergic symptoms by 31.2% in the rats with PCA **conjunctivitis** induced with ovalbumin, as compared to the control animal.
Dwg.0/0

L164 ANSWER 56 OF 68 WPIDS COPYRIGHT 2002 DERWENT INFORMATION LTD
ACCESSION NUMBER: 1992-123417 [15] WPIDS
CROSS REFERENCE: 1987-320971 [45]
DOC. NO. CPI: C1992-057662
TITLE: New 2-substd.-3-keto-gulono-lactone-(3,6)-cyclo-hemiketal cpds. - useful for stimulating immune system oimmunosuppressants in mammals.
DERWENT CLASS: B02
INVENTOR(S): FODOR, G B; VELTRI, R
PATENT ASSIGNEE(S): (THER-N) THERACEL CORP
COUNTRY COUNT: 1
PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
US 5098933	A	19920324	(199215)*		19

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
US 5098933	A	US 1990-588073	19900925

PRIORITY APPLN. INFO: US 1986-857291 19860429; US 1987-82052 19870805; US 1988-226185 19880728; US 1990-484224 19900223; US 1990-588073 19900925
AB US 5098933 A UPAB: 19940627
2-Substd.-3-ketogulonolactone-(3,6)-cyclohemiketal cpds. of formula (I) are new, where n = 2-4 and R1 = H, lower alkyl or lower haloalkyl with the proviso that R1 cannot be at the 3-position.
Specifically claimed are 6 cpds. (I) e.g. 2-(1'-keto-3'S-cyclopentyl) -3-keto-L-gulonolactone -(3,6)-cyclohemiketal (L-KCPBL-A).
USE - The cpds. are useful as immunostimulating agents and can be used for stimulating the immune system e.g. following chemotherapy or radiation therapy. They can also be used to stimulate the **proliferation** of helper **cells** in diseases such as measles, herpes virus infections and leprosy. They are also useful in the early stages of various infections to stimulate the prodn. of interleukins, interferons and other natural lymphokines. The cpds. are also useful as immunosuppressants and can be used to prevent rejection in organ transplants and to inhibit the progress of autoimmune diseases such as multiple sclerosis, systemic lupus erythematosus and **rheumatoid arthritis**.
Dwg.0/1

L164 ANSWER 57 OF 68 WPIDS COPYRIGHT 2002 DERWENT INFORMATION LTD
ACCESSION NUMBER: 1991-165615 [23] WPIDS
DOC. NO. CPI: C1991-071646

TITLE: Compsn. contg. **ascorbic acid** tocopheryl **phosphate** di ester(s) - useful for inhibition of Maillard's reaction in treatment of **diabetic** complications and age-associated disorders.
DERWENT CLASS: B02
INVENTOR(S): INOUE, J
PATENT ASSIGNEE(S): (SENP) SENJU PHARM CO; (SENP) SENJU PHARM CO LTD
COUNTRY COUNT: 16
PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
EP 430045	A	19910605	(199123)*		
R: AT BE CH DE ES FR GB GR IT LI LU NL SE					
JP 03161444	A	19910711	(199134)		
CA 2029420	A	19910522	(199144)		
EP 430045	B1	19950503	(199522)	EN	9
R: AT BE CH DE DK ES FR GB GR IT LI LU NL SE					
DE 69019111	E	19950608	(199528)		
ES 2071725	T3	19950701	(199533)		
JP 2854631	B2	19990203	(199910)		5
CA 2029420	C	20000919	(200054)	EN	

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
EP 430045	A	EP 1990-122218	19901120
JP 03161444	A	JP 1989-304479	19891121
EP 430045	B1	EP 1990-122218	19901120
DE 69019111	E	DE 1990-619111	19901120
		EP 1990-122218	19901120
ES 2071725	T3	EP 1990-122218	19901120
JP 2854631	B2	JP 1989-304479	19891121
CA 2029420	C	CA 1990-2029420	19901107

FILING DETAILS:

PATENT NO	KIND		PATENT NO
DE 69019111	E	Based on	EP 430045
ES 2071725	T3	Based on	EP 430045
JP 2854631	B2	Previous Publ.	JP 03161444

PRIORITY APPLN. INFO: JP 1989-304479 19891121
AB EP 430045 A UPAB: 19930928
A new compsn. contg. an **ascorbic acid** tocopheryl **phosphate** diester of formula (I) or its salt and a carrier is claimed. R1, R2, R3 = independently H or CH3.

USE/ADVANTAGE - The compsn. is used in the treatment or prophylaxis of **diabetic** complications such as coronary heart disease (A), peripheral circulation disorders, cerebrovascular disorders (B), neuropathy, nephropathy, arteriosclerosis, atherosclerosis (C) and retinopathy and age-associated disorders such as (A) and (B) and (C) which may develop via Maillard's reaction. Dosage is 5-2000 (20-1000) mg/day orally or 0.5-200 (2.0-100) mg/day by injection.

Sample solns. were prepd. from bovine serum albumin (No. A-8022, Sigma), 50 mM phosphate buffer soln. (pH 7.3) and the test cpd. The samples were kept for 4 weeks at 37 deg.C, and the amt. of furosine formed by non-enzymatic glycosylation was determined by HPLC (Schieicher et al., J.Clin. Biochem., 1981-87 (1981)), (I); R1,R2,R3 = CH3 gave 45.1% inhibition of furosine formation (c.f. 7.5% inhibition for

amino-guanidine, a known inhibitor of Maillard's reaction.
0/0

L164 ANSWER 58 OF 68 WPIDS COPYRIGHT 2002 DERWENT INFORMATION LTD
ACCESSION NUMBER: 1990-334846 [44] WPIDS
CROSS REFERENCE: 1990-334845 [44]; 1997-020794 [02]
DOC. NO. CPI: C1990-145386
TITLE: Enhancing trans-membrane transport of exogenous molecules - by binding to cell nutrients with receptors e.g. bio-tin or folate.
DERWENT CLASS: B04 C03 D16
INVENTOR(S): HEINSTEIN, P F; HORN, M A; LOW, P S
PATENT ASSIGNEE(S): (PURD) PURDUE RES FOUND
COUNTRY COUNT: 36
PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
WO 9012096	A	19901018	(199044)*		
RW: AT BE CH DE DK ES FR GB IT LU NL OA SE					
W: AT AU BB BG BR DE DK FI GB HU JP KP KR LK LU MC MG MW NL NO RO SD SE SU US					
PT 93646	A	19901120	(199050)		
CA 2013580	A	19901003	(199051)		
CA 2013582	A	19901003	(199051)		
AU 9054375	A	19901105	(199105)		
EP 466816	A	19920122	(199204)		
R: AT BE CH DE ES FR GB IT LI LU NL SE					
US 5108921	A	19920428	(199220)		11
JP 05502787	W	19930520	(199325)		21
EP 466816	A4	19920520	(199522)		
US 5416016	A	19950516	(199525)		12
IL 93983	A	19970218	(199720)		
US 5635382	A	19970603	(199728)		11
EP 466816	B1	19971126	(199801)	EN	17
R: AT BE CH DE DK ES FR GB IT LI LU NL SE					
DE 69031763	E	19980108	(199807)		
ES 2113346	T3	19980501	(199824)		
US 5820847	A	19981013	(199848)		
IE 81171	B	20000531	(200038)		
JP 3232347	B2	20011126	(200201)		12

APPLICATION DETAILS:

PATENT NO	KIND		APPLICATION	DATE
EP 466816	A		EP 1990-906542	19900402
US 5108921	A		US 1990-498762	19900328
JP 05502787	W		JP 1990-506140	19900402
			WO 1990-US1739	19900402
EP 466816	A4		EP 1990-906542	19900402
US 5416016	A	CIP of	US 1989-331816	19890403
		Cont of	US 1990-498762	19900328
			US 1992-851544	19920313
IL 93983	A		IL 1990-93983	19900402
US 5635382	A	CIP of	US 1989-331816	19890403
		Cont of	US 1990-498762	19900328
		Cont of	US 1992-851544	19920313
			US 1994-349407	19941205
EP 466816	B1		EP 1990-906542	19900402
			WO 1990-US1739	19900402
DE 69031763	E		DE 1990-631763	19900402
			EP 1990-906542	19900402

			WO 1990-US1739	19900402
ES 2113346	T3		EP 1990-906542	19900402
US 5820847	A	CIP of	US 1989-331816	19890403
		Div ex	US 1990-498762	19900328
		Div ex	US 1992-851544	19920313
		Div ex	US 1994-349407	19941205
			US 1997-784019	19970115
IE 81171	B		IE 1990-1201	19900403
JP 3232347	B2		JP 1990-506140	19900402
			WO 1990-US1739	19900402

FILING DETAILS:

PATENT NO	KIND		PATENT NO
JP 05502787	W	Based on	WO 9012096
US 5416016	A	Cont of	US 5108921
US 5635382	A	Cont of	US 5108921
		Cont of	US 5416016
EP 466816	B1	Based on	WO 9012096
DE 69031763	E	Based on	EP 466816
		Based on	WO 9012096
ES 2113346	T3	Based on	EP 466816
US 5820847	A	Div ex	US 5108921
		Div ex	US 5416016
		Div ex	US 5635382
JP 3232347	B2	Previous Publ.	JP 05502787
		Based on	WO 9012096

PRIORITY APPLN. INFO: US 1990-498762 19900328; US 1989-331816 19890403; US 1992-851544 19920313; US 1994-349407 19941205; US 1997-784019 19970115

AB WO 9012096 A UPAB: 20020105
Method for enhancing transport of an exogenous molecule across a membrane of a living cell is claimed comprising contacting the membrane with the exogenous molecule complexed with a ligand selected from biotin or analogues, biotin receptor-binding ligands, folate or analogues, folate receptor-binding ligands, niacin or analogues, niacin receptor-binding ligands, pantothenic acid or analogues, pantothenic acid receptor-binding ligands, riboflavin or analogues, riboflavin receptor-binding ligands, thiamin or analogues, thiamin receptor-binding ligands, pyridoxal or analogues, pyridoxal receptor-binding ligands, **ascorbic acid** or analogues and **ascorbic acid** receptor-binding ligands from a time sufficient to permit transmembrane transport of the ligand complex.
USE/ADVANTAGE - Transmembrane transport of exogenous molecules e.g. proteins and polynucleotides is promoted in plant, mammalian and bacterial cells in vitro and in vivo.

L164 ANSWER 59 OF 68 WPIDS COPYRIGHT 2002 DERWENT INFORMATION LTD
ACCESSION NUMBER: 1988-355672 [50] WPIDS
DOC. NO. CPI: C1988-157242
TITLE: Lipo-proteic complex that aids digestion - contains vitamin-E, antioxidant selenium cpd., lipid, and lipolytic enzyme esp. in mammalian pancreas.
DERWENT CLASS: B05
INVENTOR(S): BUGARD, P; HENRY, M; JAGU, J
PATENT ASSIGNEE(S): (BUGA-I) BUGARD P J
COUNTRY COUNT: 1
PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG

FR 2614205	A	19881028 (198850)*		6

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
FR 2614205	A	FR 1987-5813	19870424

PRIORITY APPLN. INFO: FR 1978-29073 19781011; FR 1987-5813 19870424

AB FR 2614205 A UPAB: 19930923

A lipoproteic complex that standardises the effectiveness of vitamin E and synthetic antioxidants contains a) vitamin E or a synthetic antioxidant b) a selenium cpd. c) a lipolytic enzyme with an affinity for lipid-water interfaces and also for polar lipids that is contained in tissue and organs contg. such cpds., and d) polar lipids.

USE/ADVANTAGE - Nutritional supplements. Good digestion is aided by acting as growth factors for lactic flora.

In an example, pancreas from pigs was freed from adipose and **conjunctive** tissue. The prod. contained around 30% lipids. 20g of sodium selenate decahydrate was dissolved in 10 litres of water and 25g **ascorbic acid** and 1.2 kg alpha tocopherol added. 25kg of the treated pancreas was crushed and mixed with 10 litres of the soln. The mixt. was homogenised and lyophilised. The solid residue was ground and sieved, then used to fill capsules.

0/0

L164 ANSWER 60 OF 68 WPIDS COPYRIGHT 2002 DERWENT INFORMATION LTD
ACCESSION NUMBER: 1987-050011 [07] WPIDS
DOC. NO. CPI: C1987-020957
TITLE: Irrigation soln. based on EAGLE's minimum essential media - contg. 2-mercapto-ethanol and hepes buffering system to provide greater stability.
DERWENT CLASS: B05
INVENTOR(S): LINDSTROM, R; SKELNIK, D L
PATENT ASSIGNEE(S): (LIND-I) LINDSTROM R L
COUNTRY COUNT: 5
PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
WO 8700753	A	19870212	(198707)*	EN	7
RW: FR					
W: DE GB JP					
EP 232377	A	19870819	(198733)	EN	
R: FR					
GB 2186798	A	19870826	(198734)		
US 4696917	A	19870929	(198741)		13
JP 63500720	W	19880317	(198817)		
GB 2186798	B	19900404	(199014)		
EP 232377	B	19900926	(199039)		
R: FR					

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
WO 8700753	A	WO 1986-US1600	19860801
EP 232377	A	EP 1986-905073	19860801
GB 2186798	A	GB 1986-7912	19860801
US 4696917	A	US 1985-761407	19850801
JP 63500720	W	JP 1986-504374	19860801

PRIORITY APPLN. INFO: US 1985-761407 19850801; US 1986-836156 19860304; US 1988-151480 19880202

AB WO 8700753 A UPAB: 19930922

An irrigation soln. comprises (a) Eagle's Minimum Essential Media with Earle's Salts without L-glutamine and phenol red; (b) 0.1-5 percent chondroitin sulphate, 99 percent pure mixed isomers; (c) 5-30 mM HEPES buffer; (d) 0.001-1 mM 2-mercaptoethanol; (e) 0.05-2 mM sodium pyruvate; and (f) 0.05-0.2 mM non-essential amino acids.

USE/ADVANTAGE - The soln. protects the anterior segment of the cornea during surgical procedures, maintains homeostasis after surgical trauma and provides metabolic substrates that may be needed for wound repair. The soln. has improved stability and resistance to pH changes. The soln. may also be used in the irrigation of **burn** wounds, as a general irrigation soln. for use in surgeries, for flushing ova and embryos from animals (human and non-human) in embryo and ova transfer techniques, for in vitro fertilisation procedures including maintenance of sperm and ova, in vitro maintenance of immature and mature ova and embryos, and transfer of ova and embryos back into the recipient uterus.

0/0

L164 ANSWER 61 OF 68 WPIDS COPYRIGHT 2002 DERWENT INFORMATION LTD
ACCESSION NUMBER: 1987-087902 [13] WPIDS
DOC. NO. CPI: C1987-036422
TITLE: Nutritional agent for cerebrospinal nervous system - comprises ribonucleic acid, ribonucleotide and/or ribonucleoside esp. as extract of brewers yeast.
DERWENT CLASS: B04 D16
INVENTOR(S): MORISHIGE, F
PATENT ASSIGNEE(S): (NISC) NISSAN CHEM IND LTD
COUNTRY COUNT: 15
PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
EP 216133	A	19870401	(198713)*	EN	12
R:.AT BE CH DE FR GB IT LI LU NL SE					
JP 62129219	A	19870611	(198729)		
US 4851390	A	19890725	(198937)		5
CA 1282333	C	19910402	(199118)		
EP 216133	B1	19930728	(199330)	EN	9
R: AT BE CH DE FR GB IT LI LU NL SE					
DE 3688769	G	19930902	(199336)		
JP 06069953	B2	19940907	(199434)		5

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
EP 216133	A	EP 1986-111411	19860818
JP 62129219	A	JP 1986-182283	19860802
US 4851390	A	US 1986-896804	19860815
EP 216133	B1	EP 1986-111411	19860818
DE 3688769	G	DE 1986-3688769	19860818
		EP 1986-111411	19860818
JP 06069953	B2	JP 1986-182283	19860802

FILING DETAILS:

PATENT NO	KIND	PATENT NO
DE 3688769	G Based on	EP 216133

JP 06069953 B2 Based on JP 62129219

PRIORITY APPLN. INFO: JP 1985-180146 19850816; JP 1986-182283 19860802

AB EP 216133 A UPAB: 19930922
Nutritional agent for the cerebrospinal nervous system comprises ribonucleic acid (I), ribonucleotide (II) and/or ribonucleoside (III).
USE/ADVANTAGE - The nutritional agent promotes recovery from conditions of cerebrospinal degenerative diseases, such as epilepsy, convulsions, brain degenerative disease, cranial nerve disease, (A) disease, cerebellar degenerative disease, spinal degenerative disease and muscular disease. Parkinson's disease and (J) and (I) epilepsy can esp. be treated.
0/0

L164 ANSWER 62 OF 68 WPIDS COPYRIGHT 2002 DERWENT INFORMATION LTD
ACCESSION NUMBER: 1986-292209 [45] WPIDS
DOC. NO. CPI: C1986-126614
TITLE: Ointments for skin and eye disease - prevention and treatment contg. vitamin(s), progesterone, testosterone propionate, menthol and precipitated sulphur.
DERWENT CLASS: B05
PATENT ASSIGNEE(S): (JERE-I) JEREB A F
COUNTRY COUNT: 1
PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
DE 3514724	A	19861030	(198645)*		4
DE 3514724	C	19891026	(198943)		

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
DE 3514724	A	DE 1985-3514724	19850424

PRIORITY APPLN. INFO: DE 1985-3514724 19850424

AB DE 3514724 A UPAB: 19930922
New ointments for the prevention and treatment of **eye** and skin **diseases** contain the ingredient listed below in ointment base, the indicated amounts being based on the ointment base, vitamin A (axeroptolum) 0.45%; vitamin B6 (pyridoxine hydrochlorite) 0.25%; vitamin C (**ascorbic acid**) 1.00%; vitamin D2 (calciferol) 0.15%; vitamin E (tocophenylacetate) 0.30% ; vitamin K3 (sodium menadione bisulphite) 0.05% ; progesterone 0.05% ; testosterone propionate 0.025% ; menthol 0.02% ; and precipitated sulphur 0.15% .
USE - Treatment and prevention of eye diseases such as conjunctivitis, blepharitis, hordeolom (sic) and chalsion (sic) and skin diseases such as acne vulgaris, proviasis vulgaris, rosacea, eczemas, furunculi, pityriasis versicolor, warts, seborrhoea and varicosis as well as haemorrhoids, fistulae, pruritis ani, anal fissures and contusions. The ointments are also suitable as skin care agents for freckles, skin atrophies and wrinkles, and can additionally be used for wound treatment, ulcus cruris, decubitus, burns and sunburn.
0/0

L164 ANSWER 63 OF 68 WPIDS COPYRIGHT 2002 DERWENT INFORMATION LTD
ACCESSION NUMBER: 1983-701545 [27] WPIDS
DOC. NO. CPI: C1983-062481
TITLE: Homeopathic pharmaceutical e.g. for treating metabolic disorders - contg. limonene, limonin, rutin and pinene,

opt. as voltage oils.
DERWENT CLASS: B04
INVENTOR(S): SLOVAK, A
PATENT ASSIGNEE(S): (WYNN-I) WYNNE D
COUNTRY COUNT: 1
PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
GB 2111384	A	19830706	(198327)*		4

PRIORITY APPLN. INFO: GB 1981-23639 19810803
AB GB 2111384 A UPAB: 19930925
Homeopathic cpd., designated 'Metamorf (Compound 561)' consists at least partly of the natural terpene deriv. limonene (I), limonin (II), rutin (quercetin) (III) and pinene (IV), opt. in the form of extracts (e.g. volatile oils) from plants of the families Rutaceae, Myrtaceae, Coniferae, Polygonaceae, Solanaceae, Oleaceae, Saxifragaceae etc. Other components of the volatile oils are **ascorbic acid**, linoleic acid, linolenic acid, isopropyl alcohol and bioflavonoids (vitamin P gp., citrin).

The compsn. acts as buffer and stabiliser within alkaline reserve of blood. It influences pH-dependent enzymatic processes at (sub)-cellular level. It shifts metabolic or respiratory alkalosis (by stabilising the Na:K ratio and cells) and acidosis (by decomposing lactic acid). It maintains cell membrane by assisting Na pump and Ca ions which penetrate cell membrane, acts as emulsifier and maintains surface activity. It acts as trace element carrier for enzymes contg. Zn or Cu ions and hence as enzyme activator. It preserves optimum Zn:Cu:Cd, Ca;Mg and Na:K ratios.

The compsn. maintains homeostasis of the fluidity/coagulability of blood and interstitial tissue fluids, in treating chronic and metabolic diseases. It stimulates gastric and duodenal mucin secretion, and heals ulcers; it also cures aspirin-induced stomach bleeding. It promotes secretion of pancreozymin, and has antihistamine, antiserotonin and anti-bradykinin (analgesic) action. It initiates antiinflammatory response to autoimmune disorders and mediates in demyelination in the treatment of multiple sclerosis.

Treatment restores the **function** of damaged **cells** and allows oxygen penetration into damaged tissues.

L164 ANSWER 64 OF 68 WPIDS COPYRIGHT 2002 DERWENT INFORMATION LTD
ACCESSION NUMBER: 1983-61827K [26] WPIDS
DOC. NO. CPI: C1983-059981
TITLE: Slimming method - by admin. of ascorbic acid, glutathione or methylene blue.
DERWENT CLASS: B02
PATENT ASSIGNEE(S): (NAYL-I) NAYLOR G J
COUNTRY COUNT: 2
PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
GB 2110931	A	19830629	(198326)*		4
US 4466978	A	19840821	(198436)		
GB 2110931	B	19860828	(198635)		

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
GB 2110931	A	GB 1982-34698	19821206

US 4466978 A US 1982-354016 19820302

PRIORITY APPLN. INFO: GB 1981-37294 19811210; GB 1982-34698 19821206

AB GB 2110931 A UPAB: 19930925

Slimming method comprises administration of glutathione or ascorbic acid (or their physiologically acceptable salts or esters) or of a physiologically acceptable salt of 3,7-bis(di-methylamino)phenothiazine, or their bioprecursors. The pref. dose, per kg per day, is 0.2-500 mg for glutathione; 5-2000 mg for ascorbic acid or 0.2-8 mg for methylene blue.

The cpds. reverse the vanadate-induced inhibition of Na-K ATPase (probably by reducing vanadate to vanadyl). They have no adverse effects on the body metabolism, and will induce wt. loss even in absence of diet regulation.

L164 ANSWER 65 OF 68 WPIDS COPYRIGHT 2002 DERWENT INFORMATION LTD
ACCESSION NUMBER: 1982-09165J [50] WPIDS
TITLE: Treatment and/or prophylaxis of manic depressive illness - by admin. of methyl-thionine salt or its bio-precursor esp. of methylene blue.
DERWENT CLASS: B02
PATENT ASSIGNEE(S): (NAYL-I) NAYLOR G J
COUNTRY COUNT: 1
PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
US 4361561	A	19821130	(198250)*		4

PRIORITY APPLN. INFO: US 1981-304665 19810922

AB US 4361561 A UPAB: 19930915

Treatment and/or prophylaxis of manic depressive illness comprises admin. of a methylthionine salt of formula (I), or its bioprecursor, where X- is an anion. The treatment avoids the side effects associated with the use of prior agents such as Li salts, **ascorbic acid**, EDTA etc. (I; X is Cl) is esp. useful as it is commercially available; it also reverses the **Na-K ATPase** inhibition caused in the body by vanadate ions (which are associated with manic depressant illness). Dose is 0.1-10 mg/kg daily of (I; X is Cl).

(I) is administered orally, parenterally etc. and dosage units suitably contain 1-300 mg., esp. for admin. of 1-8 mg/kg daily e.g. in 2 equal portions every 12 hrs.

L164 ANSWER 66 OF 68 WPIDS COPYRIGHT 2002 DERWENT INFORMATION LTD
ACCESSION NUMBER: 1980-76034C [43] WPIDS
TITLE: Preventing discolouration of peeled vegetables - by immersing vegetable in acidic soft water contg. e.g. citric acid, **ascorbic acid**, sodium meta-**phosphate**, **burnt** alum., etc..
DERWENT CLASS: D13
PATENT ASSIGNEE(S): (AOBA) AOBA KASEI KK
COUNTRY COUNT: 1
PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
JP 55118344	A	19800911	(198043)*		

PRIORITY APPLN. INFO: JP 1979-24591 19790305
AB JP 55118344 A UPAB: 19930902
The method comprises peeling the vegetables e.g. burdock taro, etc. and immersing them in a soln. which is obtd. by treating water with a cation exchange resin previously regenerated with aq. HCl and adjusting pH of the obtd. acidic soft water to 2-5.

The immersing water is pref. obtd. by dissolving 0.2-2.0 w/w% of a compsn. composed of acidic Na metaphosphate, citric acid, K metaphosphate and **burnt** alumn or 0.2-2.0 w/w% of a compsn. composed of ascorbic acid, sodium ascorbate, **burnt** alum, citric acid, common salt and sodium metaphosphate.

Discolouration is effectively prevented by immersion in acidic soft water, and by combining pH-falling agent (e.g. citric acid), reducing agent (e.g. ascorbic acid), chelating agent (e.g. acidic sodium metaphosphate), harshness-removing agent (e.g. **burnt** alum), etc. properly in the immersing soln. the preventive effect is increased synergistically.

L164 ANSWER 67 OF 68 WPIDS COPYRIGHT 2002 DERWENT INFORMATION LTD
ACCESSION NUMBER: 1967-03649H [00] WPIDS
TITLE: Therapeutic method and prepn for treating poultry.
DERWENT CLASS: B00 C00
PATENT ASSIGNEE(S): (NOST) NORTHERN STATES POULTRY SERVICE & LA
COUNTRY COUNT: 1
PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
CA 791099	A		(196800)*		

PRIORITY APPLN. INFO: US 1960-67812 19601108
AB CA 791099 A UPAB: 19930831
Therapeutic compn. for treating bluecomb, avian monocytosis, mud fever, non-specific enteritis and stress in poultry (partic. turkeys), which includes KCl, Ca(OH)2 and Mg salts (e.g. Mg(OH)2 or MgSO4) to restore the electrolyte balance in the body, streptomycin and penicillin to control Gram +ve and -ve bacteria, vitamins (e.g. vits. A, D, E, K, and partic. B) capable of increasing the appetite and correcting nutritional deficiencies, and an **ascorbic acid** deriv. (e.g. Na ascorbate) capable of restoring the adrenal glands' ability to control and maintain the normal electrolyte levels in the body.

Opt. compn. may also contain a xanthine deriv. to overcome depression and increase blood pressure, and prevent impaired renal function and **nephrotoxicosis**.

Compn. corrects the chemical imbalances, restores normal electrolyte levels and H2O retention capabilities, quickly restores normal feed and H2O consumption, improves the effectiveness of the antibiotics and vitamins, and overcomes the stress causing the morbid condition in turkeys afflicted with bluecomb etc.

L164 ANSWER 68 OF 68 WPIDS COPYRIGHT 2002 DERWENT INFORMATION LTD
ACCESSION NUMBER: 1966-33929F [00] WPIDS
TITLE: Therapeutic method and prepn for treating poultry.
DERWENT CLASS: B00 C00
PATENT ASSIGNEE(S): (NOST) NORTHERN STATES POULTRY SERVICE & LA
COUNTRY COUNT: 1
PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
CA 791099	A		(196800)*		

PRIORITY APPLN. INFO: US 1960-67812 19601108

AB CA 791099 A UPAB: 19930831

Therapeutic compn. (claimed) for treating bluecomb, avian monocytosis, mud fever, non-specific enteritis and stress in poultry (partic. turkeys), which includes KCl, Ca(OH)2 and Mg salts (e.g. Mg(OH)2 or MgSO4) to restore the electrolyte balance in the body, streptomycin and penicillin to control Gram +ve and -ve bacteria, vitamins (e.g. vits. A, D, E, K, and partic. B) capable of increasing the appetite and correcting nutritional deficiencies, and an **ascorbic acid** deriv. (e.g. Na ascorbate)
capable of restoring the adrenal glands' ability to control and maintain the normal electrolyte levels in the body.

Opt. (not claimed) compn. may also contain a xanthine deriv. to overcome depression and increase blood pressure, and prevent impaired renal function and **nephrotoxicosis**.

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[illegible] by hypoxia/reoxygenation and involvement of oxidative protein modification in relation to ischemia/reperfusion injury and)

FILE

L164 ANSWER 28 OF 68 CAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1997:439289 CAPLUS
DOCUMENT NUMBER: 127:131510
TITLE: Renal cell regeneration following oxidant exposure: inhibition by TGF-.beta.1 and stimulation by ascorbic acid
AUTHOR(S): Nowak, Grazyna; Schnellmann, Rick G.
CORPORATE SOURCE: Department of Pharmacology and Toxicology, University of Arkansas for Medical Sciences, Little Rock, AR, 72205-7199, USA
SOURCE: Toxicol. Appl. Pharmacol. (1997), 145(1), 175-183
CODEN: TXAPA9; ISSN: 0041-008X
PUBLISHER: Academic
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Renal proximal tubular cell (RPTC) monolayers exposed to the model oxidant tert-butylhydroperoxide (TBHP; 0.8 mM) for 1.5 h were 33 and 31% confluent after 1 and 4 days, resp. Control monolayers remained 100% confluent throughout the expt. Exogenous TGF-.beta.1 promoted monolayer deterioration by potentiating cellular death and suppressed EGF-stimulated regeneration of the RPTC monolayer. Net TGF-.beta.1 prodn. in injured RPTC increased 1.7- and 3.2-fold on Days 1 and 2, resp., and returned to control levels 4 days following TBHP treatment. An anti-TGF-.beta. antibody increased monolayer confluence to 50% and DNA content 1.3-fold 4 days after TBHP exposure. L-Ascorbic acid 2-phosphate (AscP) present only during the recovery period increased monolayer confluence to 67% but had no effect on RPTC proliferation, suggesting that AscP promoted monolayer regeneration by cellular migration/spreading. AscP present continuously had no effect on the extent of TBHP-induced injury but promoted regeneration of RPTC with increased monolayer confluence (1.8-fold) and DNA content (1.8-fold) and decreased cellular lysis by 52% 4 days following TBHP exposure. The results demonstrate that TBHP-induced injury increases net TGF-.beta.1 prodn. in RPTC and that autocrine TGF-.beta.1 inhibits regeneration of the monolayer by potentiating cellular injury and monolayer deterioration. The data also show that AscP is not cytoprotective during TBHP exposure but promotes RPTC regeneration by stimulating proliferation and migration/spreading and decreasing cellular death during the recovery period.

IT **50-81-7**, Ascorbic acid, biological studies **23313-12-4**,

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L-Ascorbic acid 2-phosphate
RL: **BAC (Biological activity or effector, except adverse)**; BIOL (Biological study)
(TGF-.beta.1 and ascorbic acid effect on renal cell regeneration following oxidant exposure)

L164 ANSWER 29 OF 68 CAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1996:494349 CAPLUS
DOCUMENT NUMBER: 125:150779
TITLE: Anti-irritant skin formulations containing aluminum or tin cations
INVENTOR(S): Hahn, Gary Scott; Thueson, David Orel
PATENT ASSIGNEE(S): Cosmederm Technologies, USA
SOURCE: PCT Int. Appl., 49 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9619183	A1	19960627	WO 1995-US16765	19951221

W: AM, AT, AU, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, EE, ES, FI

CORPORATE SOURCE: Central Research Laboratories, Santen Pharmaceutical Co., Ltd., Osaka, Japan.
SOURCE: JOURNAL OF OCULAR PHARMACOLOGY, (1994 Fall) 10 (3) 537-42. Journal code: IRG; 8511297. ISSN: 8756-3320.
PUB. COUNTRY: United States
Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199502
ENTRY DATE: Entered STN: 19950314
Last Updated on STN: 19950314
Entered Medline: 19950227

AB In developing chick embryos, hydrocortisone induces cataract formation following a decrease in lens glutathione content but an increase in lipid peroxide content in lens, blood and liver. The preventive effects of ascorbic acid 2-O-alpha-glucoside (AA-2G) on these parameters were compared on cataract formation with those of ascorbic acid (AsA) and **ascorbic** acid 2-O-**phosphate** (AA-2P). In these tissues, AA-2G inhibited a decrease in glutathione content and an increase in lipid peroxide content more effectively than either AsA or AA-2P. Various tissues including lens and liver have alpha-glucosidase activity, strongly suggesting that AsA is enzymatically liberated from AA-2G in these tissues. In summary, these results suggest that AA-2G exerts a potent anti-cataract activity via a reduction in oxidative damage through AsA release.

L164 ANSWER 2 OF 68 MEDLINE DUPLICATE 2
ACCESSION NUMBER: 93252299 MEDLINE
DOCUMENT NUMBER: 93252299 PubMed ID: 8486304
TITLE: **Ascorbic** acid **phosphate** ester and wound healing in rabbit corneal alkali burns: epithelial basement membrane and stroma.
AUTHOR: Saika S; Uenoyama K; Hiroi K; Tanioka H; Takase K; Hikita M
CORPORATE SOURCE: Department of Ophthalmology, Wakayama Medical College, Japan.
SOURCE: GRAEFES ARCHIVE FOR CLINICAL AND EXPERIMENTAL OPHTHALMOLOGY, (1993 Apr) 231 (4) 221-7. Journal code: FPR; 8205248. ISSN: 0721-832X.
PUB. COUNTRY: GERMANY: Germany, Federal Republic of
Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199306
ENTRY DATE: Entered STN: 19930618
Last Updated on STN: 19930618
Entered Medline: 19930607

AB We examined the effect of L-**ascorbic** acid 2-**phosphate** (P-Asc) on the healing of alkali-burned corneas in rabbits. Round filter paper containing 1 N NaOH was applied to the central cornea for 60 or 120 s to produce the alkali burn. Animals were treated with topical saline, 10% ascorbate, or 6.5% P-Asc applied on the cornea. The corneas were then examined histologically. Burned stroma showed no toluidine blue staining, indicating a loss of glycosaminoglycan. In the 60-s burn group, P-Asc reduced the size of the unstained area as compared with the control. Transmission electron microscopy showed basal lamina under new epithelia in the corneas treated with ascorbate or P-Asc, but not in controls. These observations support the theory that P-Asc may have a therapeutic role in the repair of corneal alkali burns.

L164 ANSWER 3 OF 68 MEDLINE DUPLICATE 3
ACCESSION NUMBER: 93217344 MEDLINE
DOCUMENT NUMBER: 93217344 PubMed ID: 8463733
TITLE: Effect of ascorbic acid 2-O-alpha-glucoside on

cholesterol or sitosterol, the tocopherol is a-(+)-tocopherol, the polyalkylene glycol is a polyethylene glycol or its Me monoether having an av. mol. wt. between 600 and 1000, p is equal to 1 or 2, m is equal to 0 or 1 and n is an integer between 2 and 18. A water sol. compn. contained vitamin E 0.10, polyoxyethyanyl-.alpha.-tocopheryl sebacate (prepn. given) 0.60, vitamin E 0.22, polyoxyetahanyl-.alpha.-tocopheryl sebacate 1.00 g, THF 2.50, and water 35.00 mL.

IT **50-81-7**, L-Ascorbic acid, biological studies
RL: **THU (Therapeutic use)**; BIOL (Biological study); USES (Uses)
(water-sol. compns. of bioactive lipophilic compds.)

REFERENCE COUNT: 12 THERE ARE 12 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L164 ANSWER 22 OF 68 CAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 2000:546727 CAPLUS
DOCUMENT NUMBER: 133:292070
TITLE: Ascorbic Acid Promotes Recovery of **Cellular Functions** Following Toxicant-Induced Injury
AUTHOR(S): Nowak, Grazyna; Carter, Charleata A.; Schnellmann, Rick G.
CORPORATE SOURCE: Department of Pharmaceutical Sciences, University of Arkansas for Medical Sciences, Little Rock, AR, 72205-7199, USA
SOURCE: Toxicol. Appl. Pharmacol. (2000), 167(1), 37-45
CODEN: TXAPA9; ISSN: 0041-008X
JBLISHER: Academic Press
)CUMENT TYPE: Journal
NGUAGE: English

The authors have shown that renal proximal tubular cells (RPTC) recover cellular functions following sublethal injury induced by the oxidant tert-butylhydroperoxide but not by the **nephrotoxic** cysteine conjugate dichlorovinyl-L-cysteine (DCVC). This study investigated whether L-ascorbic acid phosphate (AscP) promotes the recovery of RPTC functions following DCVC-induced injury. DCVC exposure (200 .mu.M; 100 min) resulted in 60% RPTC death and loss from the monolayer at 24 h independent of physiol. (50 .mu.M) or pharmacol. (500 .mu.M) AscP concns. Likewise, the DCVC-induced decrease in mitochondrial function (54%), active Na+ transport (66%), and Na+-K+-ATPase activity (77%) was independent of the AscP concn. Anal. of Na+-K+-ATPase protein expression and distribution in the plasma membrane using immunocytochem. and confocal laser scanning microscopy revealed the loss of Na+-K+-ATPase protein from the basolateral membrane of RPTC treated with DCVC. DCVC-injured RPTC

Searched by Barb O'Bryen STIC 308-4291

cultured in the presence of 50 .mu.M AscP did not proliferate nor recover their physiol. functions over time. In contrast, RPTC cultured in the presence of 500 .mu.M AscP proliferated, recovered all examd. physiol. functions, and the basolateral membrane expression of Na+-K+-ATPase by day 4 following DCVC injury. These results demonstrate that pharmacol. concns. of AscP do not prevent toxicant-induced cell injury and death but promote complete recovery of mitochondrial function, active Na+ transport, and proliferation following toxicant-induced injury. (c) 2000 Academic Press.

IT **125913-31-7**, L-**Ascorbic acid phosphate**
RL: **BAC (Biological activity or effector, except adverse)**; BIOL (Biological study)
(**ascorbic acid** promotes recovery of **cellular functions** after toxicant-induced injury)

REFERENCE COUNT: 43 THERE ARE 43 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L164 ANSWER 23 OF 68 CAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 2000:14978 CAPLUS
DOCUMENT NUMBER: 132:277201
TITLE: Biological effects of electric shock and heat denaturation and oxidation of molecules, membranes, and cellular functions